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RECENT ADVANCES IN THE THERAPY OF MALIGNANT NEOPLASMS OF THE HEAD AND NECK.

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(Read before the New Mexico Medical Society at its Fifty-first Annual Meeting, held at Roswell, N. M., May 18-20, 1933.)

The treatment of malignant growths in any portion of the human economy is an unenviable undertaking at best. Even with the best methods at our command today, the probabilities of ultimate success and cure of the patient leave a great deal to be desired. Yet it must be understood that by no means are our efforts always lacking in success. The lack of success is, of course, the prime reason for the multitudinous methods and means employed today and the cause for the tremendous amount of effort expended in the study of malignant disease.

This large amount of research that in most instances has been a matter of "love's labor lost," has led within the past decade to several important advances that may enable us to treat this melancholy problem with a slightly greater degree of confidence. The more important contributions, that have practicable application in daily practice, have been in the realm of coordination of the histologic appearance of the lesion to its probable biologic course and response to surgery and irradiation, as well as revolutionary changes in the technic of utilization of gamma irradiation by x-ray and radium.

The objective microscopic anatomy of neoplastic growths since the monumental work of Martzloff, Broders, Quick and Cutler, Regaud and Schmincke, has enabled us to prognosticate, with some degree of confidence, the probable clinical course that a neoplasm will pursue, and also enables us more certainly to apply the most appropriate form of therapy that is indicated.

It is a matter of common knowledge, especially to those colleagues who have a major interest in the management of malignant disease, that not all carcinomata about the head and neck pursue an identical clinical course. Most of the tumors grow slowly, tend to remain localized for a long period of time, and metastasize late in the course of the disease. Experience has also shown that the slow-growing types of malignancies are not unduly stimulated to growth and extension by trauma. On the other hand, tumors have been observed—and this is essentially true of those located in the tonsil, base of the tongue, and pharynx—to progress rapidly, metastasize early, and cause death in a very short period of time. It has been noted that trauma, even though minimal in amount, has caused marked progression and diffuse rapid extension in these types of cases. Even though the primary lesion may be small and in some instances no larger than the head of a match, the associated involvement of the cervical glands may be very extensive and invade both sides of the neck. Not rarely the primary growth may be microscopic in size in spite of the tremendous cervical glandular affection, and located only after a carefully performed autopsy. Broders was able to show graphically that slow-growing, late-metastasizing growths were highly differentiated in character, showing squamous characteristics—the cells tending toward elongated pavement structure, with marked tendencies towards keratinization and formation of epethelial pearls, intercellular bridging, and infrequent exhibition of mitotic figures. On

the other hand, the carcinomata that exhibited clinically a high grade of malignancy were of the atypical anaplastic embryonal tumors, showing a diffuse cellular growth, unusually large numbers of mitotic nuclei, and a conspicuous lack of adult features such as keratinization, intercellular bridging, and pearl formations. Broders was able to grade their probable malignancy into four degrees, depending upon the histologic picture and the relative percentage of mitotic figures exhibited.

Quick and Cutler, some time later, showed that these highly malignant anaplastic neoplasms were highly radiosensitive and responded to relatively small doses of irradiation, and that the adult fully differentiated neoplasm required exceptionally large doses of irradiation in order to effect regression.

Martin and Quimby studied the actual amounts of irradiation required to cause these growths to regress and found that the highly malignant anaplastic growths required but three to five S.E.D. distributed throughout the lesion, while adult squamous-cell carcinomata required ten to twelve, and even more, S.E.D., to effect their destruction. The radiosensitive and yet highly malignant neoplasms that pursue such a rapid course show two distinct types when studied histologically. One of these forms is the so-called lympho-epithelioma described by Regaud and Schmincke. Histologically they represent a picture of sheets and cords of diffusely growing epithelial cells. The cells themselves are rather large, pale staining, with a delicate cell membrane that may be difficult to distinguish at times and so give the impression of a cell syncytium. The nuclei are large, vary markedly, in size and have a prominent nucleolus. The characteristic feature is an infiltration of lymphocytes in various portions of the section. At times the lymphocytic infiltration may be so marked as to obscure the true underlying neoplastic cells. The exact histogenesis of this neoplasm is not known, but it has been assumed to be due to a neoplastic transformation of a so-called lymphepithelium. This term is applied to epithelial tissue in which a sort of symbiotic relationship is found to lymphoid tissue. This is, of course, most common in the nasopharynx, tonsil, and base of the tongue.

The second type is the so-called transitional cell carcinoma, described by Ewing, Quick, and Cutler. Microscopically the growth is found to be composed of diffuse cords and sheets of small round or polyhedral cells, containing large hyperchromatic nuclei that occupy almost the entire cell and show many mitotic figures. The cells vary in size and staining qualities and the growth is so anaplastic and cellular that epithelial characteristics are lost and difficulty is encountered in distinguishing them from small round-cell or lympho-sarcoma.

A review of the histologic features of over two hundred of our malignancies about the head and neck shows that the incidence of lympho-epithelioma was 5.5 per cent and that of the transitional-cell carcinoma was 17 per cent. Similar statistics have been found by other workers. The practical significance is obvious: 22.5 per cent, or about one case in four, is of the highly malignant anaplastic variety, that causes death very rapidly, that has wide, diffuse metastases throughout the body before the primary lesion has markedly increased in size, that is stimulated to rapid progression and extension by even slight trauma, and that is highly radiosensitive, being easily influenced by even small doses of irradiation. Since diffusion may have occurred before the growth has reached an appreciable size, and since surgical trauma may aid in dissemination, it is apparent that surgery is contraindicated in these neoplasms. Our experience has repeatedly substantiated the validity of this conclusion. In the past two years we have never operated upon a lympho-epithelioma or transitional-cell carcinoma. Due to their high degree of radiosensitivity and the lack of response to surgery, we employ irradiation exclusively in the treatment of these neoplasms. However, in spite of the ease with which a primary growth may disappear under adequate irradiation, death not infrequently results, due to the fact that diffusion has already occurred to the parenchymatous organs and the retroperitoneal lymphnodes, by the time the patient has sought medical advice. The prognosis is therefore poor under most circumstances.

The use of irradiation therapy for malignanf neoplasms is so well known that it requires no comment. However, there have been two significant and revolutionary changes in gamma-

ray technic that may have a decidedly important bearing upon the results to be obtained by this means of therapy. They are Coutard's method of fractional dosage of x-ray therapy and the use of telio-radium therapy, or the so-called four-gram radium bomb used at a distance.

The philosophy of the Coutard method of deep x-ray therapy is based upon the observation that the radiosensitivity of epithelial neoplasms is about the same as that of the germinal cells of the epithelium from which they arise, and also that cancer cells are most vulnerable to the gamma ray during the period of mitosis. It has been found that cancer cells undergo mitosis about every five days. It can thus be seen that decided advantages may be had by giving a sufficient dose of irradiation to affect the germinal layer of the epithelium about the tumor bed and that it would be best to distribute this dose over a period of more than five days in order to be sure to affect all cells undergoing mitosis.

This dose, the so-called epidermicidal dose, causes certain signs of a radio-inflammation to appear, and their appearance is utilized as a biologic indication that an adequate amount of irradiation has been effected. The signs of radio-inflammation appear on the skin, the so-called radiodermatitis, and on the mucosa of the air and food passages as well, the so-called radio-epithelitis. It was found that a dose of 4500 to 5000 R, distributed over a period of ten days in two daily sittings of one hour each for a total of twenty hours, would cause the appearance of the cutaneous and mucosal lesions about to be described.

The physical constants by which the dose was administered were as follows:

Focal distance	Fifty centimeters.
Field	Fifty square centimeters.
Filter	2 mm. zinc.
Amperage	4
Voltage	175 kilovolts using a constant potential generator.

About two weeks after the irradiation the radio-epithelitis of the mucosa makes its appearance clinically by the presence of whitish placques of exudate on an inflamed mucosa and disappears after a period of about another two weeks. Thus, within a month after the irradiation is started, the mucous membrane undergoes a cycle of inflammation, exudation, and repair. At about this time, that is the end of the fourth week, signs of a radiodermatitis of the skin appears, with redness followed by desquamation, denudation, and repair; this cycle occupying the fifth and sixth weeks after irradiation. It has been found that the duration of the evolution of these two radio lesions constitutes a biologic control over the correct application of the irradiation. If the mucosal and dermal lesions overlap, it is due to the fact that either too large a dose has been administered or the period of its administration has been too short. On the other hand, if the radio lesions are definitely separated, the dosage has been too small or else distributed over too long a period of time. A successful irradiation is followed by complete disappearance of the tumor.

It must be conceded that this is a rather heroic type of treatment. Systemic reactions are frequently very severe and may even progress to prostration. For this reason the patient must be kept under constant observation. Fluids must at all times be forced to the extreme and it is often necessary to resort to hypodermic or intravenous infusions. The use of alkalies and high-carbohydrate diets may aid in preventing such general upsets or decrease their severity. In spite of these unwelcome phenomena and the fact that not a few recurrences will be noted, the fact remains that many permanent cures are possible. Since this method of therapy has been but a recent addition to our therapeutic attack upon malignant disease, we cannot, of course, didactically conclude as to its efficacy. It has been favorably commented upon by many specialists in malignant diseases both here and abroad, and our results to date have enabled us to effect the disappearance of the primary growth in a sufficient number of cases for us to become somewhat trustful of its possibilities. We hope to report within a period of five years as to the actual lasting benefits to be derived from its use.

We should not pass the subject of roentgen therapy without mentioning the use of extremely high-tension therapy in the nature of one to three million volts. The ray emission from an x-ray tube subjected to such enormous potentials is of very short wave length and highly penetrating, approaching, if not

identical with, the gamma ray produced by the disintegration of radium. There are but few of such expensive and as yet experimental installations throughout the world. The third to be erected in this country was dedicated at the Mercy Hospital in Chicago during the past week and we will await with interest the reports dealing with its efficacy in the treatment of malignant disease.

The practical application of the Coutard method of roentgen therapy lies in those obviously inoperable and extensive growths of the hypopharynx, base of the tongue, and the extrinsic growths of the larynx. In the past these malignant neoplasms were hopelessly inoperable and could not be adequately treated by the methods of x-ray and radium in vogue at that time. Our experience with this method, while limited, enables us to offer a much more hopeful outlook to the patient afflicted with a growth situated in the areas mentioned.

The important advances in the technical use of radium have been similar to those in the use of roentgen therapy. They include more efficient screening, in order to utilize only the highly penetrating gamma ray with the complete exclusion of the irritating beta quantum, the use of large amounts of radium at a distance from the skin in order to employ crossbeam firing upon the neoplasm with as little disturbance of the skin as possible, and the administration of a cancerocidal dose to the tumor during an optimal period of time that takes into account the time required for the reproduction of the cancer cells. The name of teleoradium therapy has been applied to this method and it consists of the use of large quantities of radium at a distance. We are indeed fortunate in having at our disposal at the Michael Reese Hospital a four-gram pack, or "bomb," that enables us to utilize this highly efficient type of radium therapy. The radium is enclosed in a heavy lead chamber, 15 centimeters thick, with several portals of varying size, namely, ten, seven, and five centimeters. The pack is suspended by means of a mechanism that enables one to adjust the portal at any distance from the skin and permit a beam of gamma rays to play on any part selected. It is used at distances of six, ten, and fifteen centimeters from the skin, and several portals are utilized in order to effect a crossfire upon the neoplasm and spare the skin as much as possible. By this means, dosages of from sixty to ninety thousand milligram hours, and even more, of irradiation are possible. These doses are administered by exposures given in twenty to thirty minute seances twice daily, six hours intervening, for a period extending from six to eight weeks. The dermal manifestations of proper irradiation, such as radio-dermatitis and epithelitis, similar to those observed in the Coutard method of roentgen therapy, may make their appearance. The results obtained by this method have been very gratifying. Disappearance of the primary lesion may frequently be effected with relatively little difficulty. However, as with the Coutard method of therapy, this means of irradiation has been utilized in only a short period of time and one is unable to make definite statements as to lasting cures that may be observed. The primary results that we have seen have been sufficiently gratifying to stimulate our further and continued interest in this method of therapy.

DISCUSSION

DR. G. W. GRISWOLD, Roswell, N. M. (opening): In handling cases of this type, I have always had but one policy and this has been to put forth my very best efforts at early recognition of conditions that are already malignant or may become so and to advise the patients and refer them to those more competent. In dealing with such cases as have been described, most of which (in fact we might say one hundred per cent) will sooner or later terminate fatally, if not thoroughly competent to handle this class of work, it is a great injustice to attempt to do it.

I wish to express my personal appreciation of Dr. Guttman's paper, which I enjoyed very much.

DR. J. W. CATHCART (El Paso, Texas): I should like to ask Dr. Guttman what his reaction is toward the attacking of these growths through the interstitial use of radium, and through its use internally as well as the external applications. It has been my observation that, in some of these cases, if you can have the antrum opened up and get into the antrum with radium needles or radium seeds, much can be accomplished. Tonsils are also fairly accessible to radium seeds or needles, and in that way you get a more intensive effect by small doses placed inside a growth than you do by application from the outside.

DR. JOHN T. MOORE (Houston, Texas): I have enjoyed very much this good paper and these fine slides presented by Dr. Guttman. In our work in cancer of the mouth, we put the needles in the growth and, if the glands can be felt at all, we remove the glands, plant the radium at proper

points within the wound underneath the flap of skin and tissue, say ten or twelve hours; we take it out when we think it has been in a sufficient length of time.

We apply this same principle in bone sarcoma, by removing the entire growth, cutting away all of the bone, and putting the radium in at regular distances. I know definitely that cancer cells can be destroyed by these rays. The only difficulty is in getting the rays to the growth in sufficient amount and giving them a long enough time to destroy the cells. Now, why not all of us, without it being necessary to possess so large an amount of radium, put in small doses of radium properly screened in platinum needles, right into the midst of tumors? If it is thought best to do surgery in these cases of tumors of the tongue, tonsils, cheek, and so forth, do very careful sections and put in radium as a part of the operation. I have cases now in which there is no evidence of recurrence at all for more than five years.

DR. GUTTMAN (closing): I trust that I did not give the impression that malignant disease could only be treated by Coutard's method of roentgenotherapy. This certainly was not my intention. It was no oversight on my part that interstitial radium therapy was omitted from the article. The title limited my discussion to the recent advances. Until the advent of the newer methods of gamma-ray therapy, we employed interstitial radium therapy, with or without surgery, as the individual case indicated. We utilized the one, two, three, and four centimeter needles, containing one milligram of radium per centimeter of needle length. With adequate screening, these needles were implanted in and about the tumor and permitted to remain in situ for a period of five to seven days. Surgery must also be considered in the treatment of malignant disease and, if the growth is small and localized, electrothermic surgery is to be preferred. We restrict our indications for gamma irradiation to those growths that are obviously inoperable from the anatomical or histological point of view, or use it as an adjunct to surgery.

The American Public Health Association announces that its Sixty-third Annual Meeting will be held in Pasadena, California, September 3-6, 1934. The Western Branch of the American Public Health Association, with a membership of more than 1,200 from eleven western states, will hold its Fifth Annual Meeting at the same time.

Dr. J. D. Dunshee, Health Officer of Pasadena, has been appointed Chairman of the Local Committee on Arrangements. He will be assisted by Dr. John L. Pomeroy, President, and Dr. W. P. Shepard, Secretary of the Western Branch, and other prominent public health authorities on the west coast.

THE PLACE OF ALLERGY IN MODERN MEDICINE

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(Read before the El Paso County Medical Society, El Paso, Texas, September 11, 1933.)

The history of medicine is largely the history of succeeding ideas born of some minds with the capacity to crystallize a logical conclusion from the mass intellect of their time, followed by efforts of countless workers either to disprove or to enlarge this idea and make it a practical part of the medical, technical, and mental armamentarium. Such an idea is that of allergy, the broad ramification of which has long since passed the early experimental states and is now an accepted field of medicine. It is, however, in that portion of its evolution which is characterized by over-enthusiastic proponents on the one hand and a large body of physicians on the other who, to put it mildly, offer a bulwark of passive resistance. Fortunately there is a growing group who are attempting to reconcile these two positions and to establish the field of allergy in its proper place in general medical science. This paper is an attempt to place before you in a general way what the field has to offer to the practitioner and to the specialist in almost every field. I shall point out symptom complexes that have been proved to be of allergic origin, what is to be done in diagnosis and treatment, and what results are to be expected.

I shall make no attempt to discuss the theories of the mechanism of the allergic response, other than to say that by an allergic response we mean a pathological reaction on the part of the body to substances which elicit no abnormal response in the non-allergic individual.

GENERAL METHODS OF DIAGNOSIS

The allergist, as any other specialist, must avoid too narrow a viewpoint. Every patient must be considered as a sick individual and, as such, deserving our best efforts at history taking and physical examination, as well as careful interpretation of indicated laboratory data. That organic disease may have profound effect upon the allergic state has perhaps been incompletely recognized by most of us, account-

ing for a good percentage of failures by allergists to relieve the presenting symptoms. Suffice it to say that the allergist who does not predicate his allergy study by complete general study, is doomed to failure with a considerable number of his patients. For the study of the allergic factor, several methods are open to us. These are careful history of occurrence of symptoms, skin testing, scratch, intradermal and patch testing, and elimination of possible offenders, either by changing environment or trial dieting. For detecting sensitivity to pollens, animal epithelium, and miscellaneous dusts, the skin-testing methods are unexcelled. For diagnosticating the case of eczematous eruptions, the patch test is particularly adaptable; while, for composing a non-offending diet for the food-sensitive case, both skin testing and trial diet are valuable.

For the highest efficiency in skin testing, one must remember certain factors. A positive test means either past, present, or future allergic history. Negative tests may be due either to impotent testing material, faulty technic of the test, periodic negative phases in the skin sensitivity, or to poor choice of skin sites to be tested, when the substance tested actually is a clinical offender.

The interpretation of the reactions must be based upon the recognition of different types of skin sensitivity, and the reactions must be observed over a sufficient time interval. It must be remembered that, although the technic of the tests is relatively simple, the whole is not an A B C procedure and must be undertaken with a realization of all the complicating factors.

In food allergy, trial diets are invaluable. However, I believe that the most expeditious way to work out a food case is first to arrange a diet composed of negative skin reactors, then if necessary utilize trial diets composed only of selected negative reactors. In a series of 126 cases giving positive food tests, only five did not react to some item in each of Rowe's original elimination diets. I am convinced that much time and effort is saved by basing food trials on carefully done skin tests.

HAY-FEVER

Typical seasonal hay-fever presents no great problem of diagnosis. Diagnosing its complete cause is a more complicated matter. The offending pollens must be identified by careful history of onset and cessation of symptoms, in conjunction with complete information relating to the botany of the patient's community; by skin tests, both scratch and intradermal; and, if necessary, by conjunctival tests with dry pollen. A satisfactory treatment set must then be compounded, giving due consideration to the relative importance of the individual pollens and to their botanical relationships. Treatment should then be instituted with a very small non-reacting dose. Let me emphasize that no standard set of doses or intervals of injection can fit many patients. These should be highly individualized to meet the requirements of each patient. Several causes of failure must be kept in mind:

First, inadequate identification of offending pollens; second, inclusion in the treatment set of pollens giving positive skin tests but actually not offending; third, poor regulation of dose of extract, either too great, too small or with improper intervals between doses; fourth, failure to recognize secondary factors, either infection or other allergens, such as animal epithelial, other dusts or foods; fifth, use of impotent extracts.

The treatment should be begun at whatever time of year the patient presents himself. Perennial injections are by far the course of choice; but even coseasonal treatment, properly done, is highly effective The hay-fever season in the Southwest is so long that one may be saved two or three months of suffering, even though he does not present himself for treatment until after symptoms are well developed. Under perennial treatment for three seasons, a certain number of patients will remain free of symptoms for a varying number of seasons, although statistical evidence is yet lacking as to what percentage of cases thus treated will secure such results.

The results to be expected in the treatment of hay-fever are excellent. An analysis of sixty cases that have been under my personal observation for a sufficient length of time to warrant evaluation of the effect of treatment follows: Fifty-seven have secured 90 per cent relief or better. One is recorded 75 per cent relief. One is recorded 60 per cent relief. One is recorded 50 per cent relief. Twenty-eight of these cases have had some secondary factor, either dietary or sensitivity to some dust allergy, which had to be controlled before results were obtained. In forty cases, treatment

was first instituted after symptoms were well developed. The remaining twenty were begun pre-seasonally. These figures are convincing as to the efficacy of desensitization treatment of hay-fever; particularly so, in that seventeen of these patients were sufficiently difficult cases to have received no benefit from desensitization in previous seasons.

ASTHMA

Asthma presents to the allergist a much more complex problem than does hay-fever. In this group of patients, it is particularly important to seek out and correct organic lesions, infection, and endocrine disturbance. Only then does desensitization, elimination, or environmental change have its maximum effect. The allergens implicated in the etiology of asthma are so numerous and varied that it is useless to attempt their enumeration. In my own experience they have varied from the common pollens, foods, and dusts, to emanation from a varnished cedar chest. It is my belief that the most common factor is sensitivity to foods. Unusual causes are the scales from butterfly wings, spores of fungi, and traces of gaseous chemical preservatives found in certain dried fruits. Pathogenic or non-pathogenic bacteria may also be exciting allergens.

Aside from general measures directed to coincidental or complicating disease, the treatment of asthma is essentially the search for and elimination of or desensitization to offending allergens. This requires time and patience coupled with most searching inquiry, and one cannot expect results with incomplete methods. My patients are led to expect no results in less than six months time. The average time that is required to secure relief is considerably less than that, however.

Results in this group are also excellent. In a group of eighteen patients who have been under observation for a sufficient time, no relief was obtained in one, and 50 per cent relief obtained in one. The remaining sixteen have been relieved of their attacks except in a few isolated instances when offending allergens were contacted. These patients ranged in age from six months to sixty years and the duration of asthma had been from three months to twenty-three years. The series, of course, is too small to draw sweeping conclusions but it is certainly indicated that we may expect to control asthma more efficiently than in the past.

URTICARIA

There is no argument concerning the etiology of urticaria. By far the majority of cases are caused by foods. The intermittent nature of the condition, however, is baffling at times and there are undoubtedly secondary factors which permit certain food allergens to cause trouble at certain periods but to be inoffensive at others. This makes the use of trial diets ineffective in many cases. Also, there are many individuals who give positive skin reactions only when the condition is present. The usual intermittent cases are probably best worked out by the use of careful food diaries. The chronic cases are baffling and require careful and repeated skin tests, trial dieting, and close scrutiny of the patient's general health. The etiological role of drugs must not be overlooked in this connection.

Concerning the foregoing, there is little argument. There follows a series of abbreviated case reports selected to illustrate the ubiquity of allergic phenomena and concerning which there will probably arise protests or skepticism. The conditions and cases are selected at random, therefore little connection can be noted.

Angina Pectoris. I cite this illustrative case because of having had the opportunity of close observation over a year's time.

Mrs. A., age 63, a member of my family, was diagnosed angina pectoris by Dr. Werley after a series of rather typical attacks. Food tests were done and a number of positive reactions were secured. The most important were bananas, turnip greens, spinach, pork, cabbage, and coffee. All except coffee were known to cause gastric distress. All the items were removed from the diet. The attacks ceased and the patient rapidly gained strength. She is unusually fond of coffee, however, and during the past year has undergone a series of cycles consisting of rigid dieting, marked improvement with no attacks, a recurring conviction that coffee does not harm her, and a period of several days' return to coffee drinking climaxed by a typical attack of angina pectoris. She has never had a typical attack which was not preceded by several days of coffee drinking. Close observation of this case has convinced me of the correctness of Dr. Werley's contention that sensitivity to foods is at least one of the major factors in this condition.

Migraine. The dramatic results obtained in certain cases of migraine, after removal of offending foods from the diet, is so striking that no case should be denied the benefit of a trial along this line.

Dr. D., age 48, had had migrainous headaches periodically for many years. Food tests gave a strong positive reaction to wheat. Only indifferent attention to this item of diet has resulted in practically complete freedom from headaches.

Non-Migrainous Headache. Mrs. M., age 40, has

suffered with severe non-migrainous headaches, frontal type, for ten years (several attacks a month). She has labored under the diagnosis of sinus headaches and has visited her doctor regularly for temporary relief. Food tests were done, the offending foods were removed from the diet and there has been no return for a period of six months, except when these foods were either tried experimentally or taken inadvertently when dining away from home.

Colitis. Mr. H., age 45, has suffered from a very distressing colitis for a number of years. No relief was obtained from the usual efforts at control. A number of positive food tests were obtained and, following the removal of these foods, the symptoms disappeared. Re-addition of these foods to the diet resulted in return of symptoms in each instance.

Cyclic Vomiting. W. C., age 6, presented the symptoms of cyclic vomiting. He was first seen during a period of severe digestive upset. Due to his condition, adequate testing was out of question. His diet had been reduced to six or eight items, but symptoms were as severe as before. A trial diet was instituted containing none of the items he had been receiving, nor any wheat, eggs, or milk. His symptoms disappeared within twenty-four hours. Subsequent testing identified egg as the principal offender. He has had no further trouble over a period of three months, except when egg was given him by a neighbor who was unaware of the restriction.

Enuresis. Master H., age 7, sought relief from intractable bed-wetting. There had been scarcely a night during his life that did not end with a foul-smelling wet bed. There was a marked family history of allergy as well as bed-wetting, his father, an uncle, and a cousin having been afflicted with the condition. Skin tests were done with a large number of positive results. He was placed on a diet consisting of foods to which he had reacted negatively. The only improvement noted was that the volume of urine passed during the night was greatly reduced. A more restricted trial diet was contemplated, but the original diet was so restricted that it was deemed undesirable to cut it down further. Several days' trial of allowing no food between noon and breakfast was advised. To my surprise, the patient did not wet the bed during the three nights the trial was in progress. Following that, he was given a single item for his supper, adding a new item each night. He had no trouble until beef was added to the evening meal, with a resulting wet bed. Beef was excluded from the diet entirely. No further bed-wetting has occurred, while the diet is being gradually rebuilt to normal.

Stomatitis. Mr. R. had suffered for several years with ulceration which appeared suddenly on the tongue or cheek, lasted for several hours or days, and then suddenly disappeared. He had a rather indefinite allergic history. Several foods were found to give positive skin reactions. Upon removal of these items, the ulcerations ceased to appear except at very infrequent intervals. These occurrences were not sufficient bother to the patient to warrant further investigation.

Low-Grade Fever. Mrs. A. presented herself with hay-fever and a history suggesting food sensitivity. She had also been diagnosed as being actively tuberculous. On relief of her hay-fever, she continued to have an afternoon temperature of 1 or 1.5 degrees. When tested for sensitivity, she gave a positive reaction, among other things, to wheat. It was found, by repeated trials thereafter, that wheat would cause the appearance of low-grade fever and that exclusion of it from the diet resulted in a normal temperature. Careful checking of her chest convinced us that the earlier diagnosis of tuberculosis was in error.

There remains a group of allergic individuals who present symptoms resembling almost any well-established gastro-intestinal disorder. Chronic appendicitis, constipation, gallbladder disease, acute chronic gastritis, dysentery, peptic ulcer, toxemia from stasis, may all be simulated by reactions to offending foods. Illustrative cases could be cited at length but one outstanding one will suffice.

Miss, age 30, presented a history of having been treated, without relief, for most of the conditions mentioned above. Her appendix had been removed. Finally she was told that she had a marked viscenoptosis, for which she wore an abdominal belt for six months with no improvement. By then her symptoms were so severe that she could retain no food at all except goat's milk. She was advised to remain in bed indefinitely and hope that some day she would recover. She had prepared herself for a life of invalidism. At this juncture, as a last hopeless gesture, I was consulted as to the possibility of allergy playing a part in her condition. Her personal and family history was filled with allergy. She had had hay-fever, asthma, eczema, and hives, at various periods, as well as numerous food idiosyncrasies in childhood. Food tests showed positive skin reactions. Careful physical examination showed no evidence of organic pathology nor visceroptosis. She was given an initial diet of goat's milk, spinach, rice, lamb, pure rye bread, and honey. Above all she was assured that there was no organic disease, that she could throw away her abdominal belt and that she should remain in bed only if it suited her fancy. Her first meal was retained without discomfort and after ten days she was gaining weight and strength. In three months, her diet had been sufficiently enlarged to be well balanced, she had gained twenty-pounds and had taken to mountain climbing for exercise.

This case illustrates two outstanding features. One is the capacity of an allergic state to produce varied and severe symptoms. The other is the wide-spread habit of many medical men to ignore very definite historical data pointing clearly to a possibility of allergy as a major factor in various and sundry ills.

It has been established that many other symptoms and conditions not mentioned above, may have an allergic basis. To mention some of them only, there are eczema pruritis, numerous obscure skin conditions, conjunctivitis, frequency of urination, Menier's syndrome, recurrent colds, chronic sinus symptoms, and bronchial irritation with cough. It would make this discussion too tedious to elaborate upon them.

There are several general points which I wish to leave with you:

(1) The manifestation of the allergic state is protean in nature.

(2) Allergic sensitivity is encountered much more frequently than is generally supposed.

(3) A few indifferent skin tests do not constitute a satisfactory basis for controlling allergic conditions.

(4) Competent and conscientious work with patients over a sufficient period of time will, in the majority of cases, produce satisfactory results if the allergic nature of the condition has been established.

(5) The definite sign posts pointing to an allergic factor in many conditions must not be ignored.

In conclusion, I wish to make clear that I do not want to be placed in the position of seeming to advocate that allergy will explain all our problems or that it is to be considered first in diagnosis of all the conditions discussed. But I do wish to emphasize that, when other causes for these symptoms have been ruled out, it must not be forgotten that allergy may explain them; and that careful inquiry into the personal and family allergic history will often point the road to a diagnosis that is otherwise obscure.

ALLERGY IN RELATION TO THE UROGENITAL TRACT

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(Read before the Nineteenth Annual Session of the Medical and Surgical Association of the Southwest, held at El Paso, Texas, Dec. 7 to 9, 1933.)

One of the first questions occurring to those interested in the study of allergy was whether the manifestations of sensitization were confined to certain organs or whether all of the organs of the body took part, in greater or less degree, in the changes occurring in this peculiar state. The manifestations in the skin and respiratory tract are familiar to every one. Do similar manifestations take place elsewhere? The observations bearing on this question are of two kinds, experimental and clinical. Both are subject to varying interpretations, but there is little doubt that it has been shown that various organs and tissues, such as uterus and intestinal wall, are altered by sensitization, and react differently after it. We are here concerned only with the extent to which the organs and tissues of the urogenital system are affected by sensitization, and it must be said at once that the literature is scanty and unsatisfactory.

Experimental findings will be first considered. Long and Finner[1] perfused with tuberculin the kidney of a tuberculous guinea pig, and found, four days later, coagulation necrosis of the glomeruli and tubules. Controls showed that this did not occur in healthy animals. Helper and Simonds[2] sensitized rabbits with various proteins and then injected the same proteins directly into the kidney substance with syringe and needle. Controls showed hemorrhage from the trauma of the needle, but in the sensitized animals there was necrosis in addition to the hemorrhage. The necrosis was more extensive in the cortex than in the medulla. Longcope,[3] suspecting that repeated anaphylactic shock might have something to do with chronic nephritis, subjected rabbits to long series of such shocks, at the end of which he found marked nephritic changes in the kidneys. Boughton[4], however, showed that rabbits are extremely subject to chronic nephritis, either spontaneously or as the result of experimental conditions; so Longcope's theory must remain for the present as unproved. Experimenters have hypothesized a good deal. Some experiments have indicated that inflamed or injured tissues may react more strongly than intact tissues—so much so that they may react to a dose of allergen so small that it does not affect intact tissues at all, even in a highly sensitized animal. To Hepler and Simonds this suggests the possibility of such reactions in kidneys already damaged by other pathological processes.

As to the bladder, Mainwaring[5] felt that he had demonstrated that the bladder of a sensitized animal contracted on perfusion with the allergen just as does the uterus, but Grove[6] has shown that the contractions noted were due to asphyxia, and under controlled conditions obtained no contractions. We find, therefore, no objective experimental evidence of allergic reactions in the bladder muscle.

There appears to be some evidence that the testis may be made to show an allergic reaction. Hirsch and d'Andrea[7] injected a suspension of mycelial powder in the testes of guinea pigs infected with coccidiosis and obtained what they considered to be a specific allergic reaction, consisting of edema and cellular infil-

tration. Long[8] infected the testes of guinea pigs with tubercle bacilli, and found the initial reaction different in normal pigs and in those already tuberculous. Later the non-immune animals showed more tendency to necrosis and less to fibrosis. The testes of tuberculous guinea pigs showed an intense reaction to injections of tuberculin, with necrosis of the germinal epithelium and sterilization, but no such reaction could be obtained after sensitization of the non-tuberculous animal with tuberculin or[9] with other foreign proteins such as gliadin and egg-white. In other words, while marked reactions can be obtained in the testes of animals infected with coccidiosis and tuberculosis by the injection of allergens derived from the infecting agents, there is no evidence of any allergic reaction occurring after simple sensitization with these or any other allergens. If we are to believe the findings of Hepler and Simonds, this places the testis in a different category from the kidney. I feel, however, that much more work is necessary before reaching any such conclusion. Yun[10] reports a rather pretentious study of the effects of orchidectomy and of injections of testicular substance on anaphylactic shock. He concludes that the presence of the testicular hormone is necessary for anaphylactic shock to occur in full force; that is, if the testes are removed, anaphylaxis is "inhibited" or reduced in severity. It seems to me that these conclusions are based on very scanty data, and it is interesting to note in this connection that Hawkins[11] reports excellent results from the treatment of asthma by the subcutaneous injection of fresh testicular emulsion. Such contradictory reports make one very skeptical, and demand more thorough and careful studies, if we are ever to ascertain the facts.

There is no occasion to do more than mention the work done on allergens isolated from the urine and used in the diagnosis and treatment of human allergic conditions.[12] These substances are supposed to be excreted unchanged by the kidneys, and the urinary tract plays a purely passive role. There is as yet no evidence that the passage of these allergens through the kidneys does them any harm.

A glance over the data just given shows that there is very slight positive evidence that sensitization to any foreign substance causes any demonstrable local sensitization of any urogenital organ except the uterus. Strong local reactions may occur, however, in animals actually infected with such diseases as tuberculosis, and probably play an important role in determining the spread of the disease to the various organs of the urogenital tract. These reactions certainly appear to have much in common with simple allergic reactions, but there is equally certainly some deep-seated and important difference between them, which remains to be fully elucidated.

Turning to the clinical side, I believe that it can be stated that clinical manifestations of allergy in the urogenital organs are slight and rare, for the simple reason that there is such a dearth of reports of them at a time when the general subject of allergy has received the widest and most earnest attention.

In the kidneys, allergy has been suspected of causing chronic nephritis, but, as has been stated, there is as yet no proof. Paroxysmal hemoglobinuria may be an expression of allergy to cold, but here again the kidneys play a passive role. During severe cases of anaphylaxis, albumin, casts, and blood may appear in the urine, as in any severe intoxication, but evidence of permanent damage is lacking.

Since the most important part of the ureter is smooth muscle, allergy has been invoked as an explanation of certain cases of ureteral spasm and colic without other obvious cause. It is certain, however, that this is not a common accompaniment of the usual allergic state, and so many factors are present in such cases that nothing definite can yet be said.

In spite of the absence of supporting experimental evidence, most of the clinical data worthy of serious consideration concern the bladder. Eleven years ago Duke[13] called attention to certain cases in which severe hay-fever and asthma were accompanied by painful and frequent urination which disappeared after successful treatment of the allergic condition. In addition the urine was normal at all times. Apparently this symptom complex is not very uncommon, as I have spoken to many who have observed it. Similar symptoms are also seen sometimes in cases having a reaction during a course of immunizing treatment, and these occur in both pollen and food allergy cases. These are called "vesical crises," particularly if the bladder symptoms predominate over the others. I might say

in passing that the prolonged use of ephedrin may cause urinary difficulty and even retention, which condition must be distinguished from the allergic bladder. More recently Salen[4] has reported cases similar to those of Duke, but adds the observation that one of them showed pus in the urine during the attacks, although urinary cultures were sterile. These pus cells proved to be practically all eosinophiles and disappeared completely after successful treatment of the allergic condition. He also makes the curious observation that some of his asthmatics who suffered from frequent and urgent urination stated that voiding relieved the asthma somewhat. Duke's patients were examined cystoscopically, with negative findings, and I can discover no other data as to the mechanism of the bladder changes. Enuresis may result from this type of bladder change in children, and sometimes accompanies an allergic state. This idea is supported by the disappearance of the enuresis after successful treatment of the allergic condition. It is doubtful, however, whether all cases of enuresis can be ascribed to allergy. Hay-fever and asthma may disappear temporarily after the relief of diseased conditions in the urogenital tract, just as after other surgical operations.

Under the heading of the urethra might be placed the great quantity of work done on skin tests and vaccine treatment for gonorrhea, but I hesitate to enter this field, where the volume of literature is so great and the core of solid proved facts so small. With your permission, therefore, I shall pass it over. Allergic urethritis seems theoretically possible, but I know of no convincing case.

The same can be said of the prostate and seminal vesicles. I have seen one case in which pain in the prostate and vesicles always accompanied an attack of hay-fever and sinusitis, and another in which prostatic irritation and priapism appeared to follow the drinking of home-brewed beer, but it must be said that both of these patients were physicians who were particularly interested in allergy. I am sure many of you could recall such interesting and suggestive observations, but unfortunately they do not constitute acceptable evidence on which to base a statement of fact.

Since it is apparent that manifestations of pure allergy in the urogenital tract are neither frequent nor very serious, discussion must take the line of hypothesizing about the more obscure effects which allergy may have as a complicating or etiological factor in other diseases of the urogenital tract. If it is a fact that tissues damaged by infection or trauma are more prone to undergo allergic reactions, we may account in this way for some of the exacerbations, recurrences, and other alterations in severity which characterize long-continued infections of these organs. On the other hand, if we assume that unrecognized allergic reactions occur in the urogenital tract, they may form starting points for chronic infections, as they do in the respiratory tract. These possibilities provide, it seems to me, interesting but difficult fields for future study and experimentation, but today they occupy the realm of practically pure theory. The more complicated problem of the so-called infectious allergy, best illustrated in tuberculosis, undoubtedly has important connotations for urology. We have all seen clear instances of the acute, even violent, onset of epididymal tuberculosis during generalized tuberculin reactions in tuberculous patients. Here, however, we must await further clarification of the entire phenomenon. If tubercle bacilli, but not tuberculin, can cause this type of sensitization, it seems clear that the bacilli must produce other toxic products not contained in tuberculin, and with which we are not yet familiar. It is possible that a better knowledge along these lines will throw a great light on the problems of infection for the entire body, as well as for the urogenital tract.

I feel very strongly that the conception of allergy has thrown open to our view a tremendous region full of interest and even promise, but that we have scarcely begun to advance into it. Much of the work that has been done is of far too superficial character, and real progress must depend upon greater knowledge of the fundamental principles concerned, and how they take their places in the general concept of human physiology and pathology.

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DISCUSSION

DR. A. W. MULTHAUF (El Paso): The essayist should be complimented on the splendid presentation of his subject. He has had a difficult subject to present, because, as he has said, the available data must be carefully analyzed to get the facts, as the matter of allergic interpretation is still in its infancy.

It has not been so long ago but what we can all remember, when vague diagnostic problems were diagnosed as neurasthenia. A great many of these diagnoses were undoubtedly correct, but undoubtedly a great many pathological cases were likewise overlooked. I bear in mind the adivce of a preceptor of mine who told us, "Gentlemen, when you are confronted with a case that has been called neu- overlooked. I bear in mind the advice of a preroneous and give the case everything that you got." I am very much afraid that allergy is going through the same evolution. To admit that allergy is not encountered is to admit one's ignorance of the advance of medicine. However, I see no excuse for the sane individual losing control of his process of reasoning and going off half-cocked, to use a slang expression, and calling cases allergic which, let us say, are borderline ones, which I am prone to feel will be the case within the next few years.

To make our data available we must give these cases the most careful investigation from the standpoint of history-taking as well as laboratory tests. I am emphatically convinced that we encounter allergic phenomena in the urinary tract, as I have had two cases that are proved from both the standpoints that I enumerated.

I have purposely taken the vitriolic attitude in my preface, because already we hear the expression used, "Well, this case must have an allergic background." Now, gentlemen, if we succumb too readily to this interpretation we can all see the effect it will have on allergy, which condition, beyond question, does have and will have a definite place in future medicine.

IMPRESSIONS OF SURGERY IN EUROPE

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(Read before the El Paso County Medical Society at its regular meeting, November 13, 1933.)

"Der Herr Professor!"

A stage whisper electrifies the operating room. Four assistants, an anesthetist, and two scrubbed nurses snap to attention. Doing nothing in particular, they betray their nervousness. The patient has already been under anesthesia for twenty minutes, lest the Professor be kept waiting.

A quick step is heard. A small, wiry man with scanty sandy hair strides in with the air of a dictator. The sleeves of his operating gown reach his elbows. Forearms and hands are bare. He wears no cap or mask. It is the great Sauerbruch.

He wastes no time. Almost in one movement he steps upon his stool, grasps a scalpel and incises the patient's chest from vertebrae to axilla. In incredibly short time, periosteum has been raised, ribs resected, and the pleural cavity opened, as boldly as one might enter the abdomen. A bullet lodged in the lower lobe is palpated and removed. The surgeon growls as he works. One false move by an assistant draws a storm of abuse. Nurses tremble lest instruments be hurled across the room. Visiting surgeons, safely perched on a platform, are ignored.

As quickly as he came, Sauerbruch leaves. His first assistant is to check the hemorrhage and close the wound. You wonder why the bullet, encapsulated for eighteen years, was removed, whether the patient's interest was paramount. Such is your first glimpse of German surgery.

Contrast this picture with a scene in an English operating room. Mr. Gordon-Taylor (an English surgeon is always called "Mister") is resecting a stomach, for ulcer. He wears a mask and gloves, but above the collar of his gown you may notice a starched collar and bow tie; he has not bothered to change from street clothes today. As he works, skillfully, quietly, he talks to visiting surgeons. This case is a young man of twenty-eight

years. Experience has taught Gordon-Taylor to resect stomachs early, he tells you. Surgeon, assistants, and nurses cooperate smoothly and a neat operation is quickly accomplished. Perhaps you would like to have tea with Gordon-Taylor before the next operation, for it is late afternoon.

Mornings in London there is less surgery. Looking about for suitable work, you find a course of some kind the best available occupation. Everything for post-graduates in London is offered in courses. Every course leads to an examination. The American student of medicine, State Board examination passed, can forget exams, but the English student has the prospect of examinations for many years, before he can write after his name the coveted degrees.

There are in London sixty medical schools. Each is connected with a teaching hospital, of which it is an integral part, physically and financially. And each is a part of London University. In these schools are constantly found large classes of doctors, from Australia, South Africa, all Britain's far-flung dependencies, studying for the F. R. C. S. or the F. R. C. P. examinations. Some have sat for the preliminary exams five or six times. Nothing daunted, they are back for another trial. Speak to one of the examiners, a physiologist of note, and you are politely told—the English are always polite—that you, an American, may as well save your time and money. The Royal College of Surgeons is strictly a British institution.

However, if you wish to join one of the F. R. C. S. classes, that is another matter. Fundamental subjects you will review, with excellent lectures by prominent men, e. g., physiology under brilliant young Sampson Wright, anatomy under Professor Yates. The English are ardent students of anatomy. In every consultation, detailed anatomy is heard discussed as familiarly as symptoms.

Then there will be excellent clinical work. In old St. Bartholomew's Hospital, founded in the year 1123, it may be your good fortune to make staff rounds regularly with Professor Gask. St. Bart's presents a surgical unit as modern as the main hospital is ancient. Surgery here is conservative and carefully planned, well executed. Gask's work on surgery of the sympatheetic system is attracting attention. One case you may see of megalocolon in a girl of fifteen years, relieved by stripping the aorta from the inferior mesenteric artery down to the bifurcation. Numerous cases of Raynaud's disease and similar vascular conditions of the extremities are seen, many with cures effected by lumbar sympathectomy. Thyroid disease is found quite prevalent, the treatment not varying essentially from our own. Abdominal surgery is also quite similar to American work.

One striking contrast in English clinics is the prevalence of carcinoma of the tongue and lips, as compared with the incidence in America. A British surgeon opines that poor oral hygiene may be the etiological factor. You are surprised to learn that in this day of radium, there are eminent London surgeons who employ radical surgery in the treatment of these cases, even for the early stage.

You find it convenient to spend mornings in class or dissecting room at Middlesex Hospital. Afternoons you travel miles across widespread old London, to see this surgeon or that in action. A list of the day's operations is posted each morning in the Royal Society of Medicine headquarters. In any amphitheatre, you will be coolly but courteously treated. Should you be so fortunate as to carry letters of introduction, you will find a cordial welcome.

One day you visit the Brompton Cancer Hospital to see Abel, understudy of the aging surgeon Miles, perform a technically perfect resection of the rectum. Confirming your previous opinion that with spinal anesthesia there is less shock, Abel uses spinal. His two-in-one abdomino-perineal resection is completed in less than one hour. You are then invited, with a score of visitors from the corners of the globe, to see a movie reel of the same operation, a most impressive demonstration.

Another day you brave a cold, drizzling rain to visit Chelsea Hospital for Women, where Victor Bonney is operating just before retiring from active service. Bonney will tell you that he described the so-called Sturmdorff amputation of the cervix in 1912, four years before it was recorded by the German. You find him an agreeable old gentleman, given to many peculiarities of technic, but a wonderful operator. His gynecological procedures are quite conservative as compared with what the Germans will show you. For instance, supravag-

inal hysterectomy is often performed by the English, rarely by the Germans. You see Bonney perform a classical cesarean section for removal of a three-month-old dead fetus, and learn that such is common practice in England and on the continent.

Again, you find yourself in an operating room of Brompton Tuberculosis Hospital. J. E. H. Roberts does a neat lobectomy in less than an hour, removing the lower lobe for bronchiectasis. The anesthesia is gas, under positive pressure. English anesthetics are as excellent as German are poor. Roberts' technic is essentially the same as that of Brunn in San Francisco. (See S. G. O. Nov., 1932.)

Here at Brompton Tuberculosis Hospital, Tudor Edwards will demonstrate his treatment of pulmonary carcinoma with radon needles. The needles are small pointed bullets, injected by a specially constructed catheter of small bore. The tumor is reached either by bronchoscope or by plunging directly through intercostal spaces into the lung tissue. Skeptical as you may be regarding cancer cures, after seeing one patient who has gained thirty pounds in weight, recovered the use of his voice, and shown remarkable clearing of the x-ray findings, you admit that this must be the best treatment yet advanced for carcinoma of the lung.

Middlesex Hospital presents mute evidence of the financial difficulties encountered by all London hospitals, the majority of which are supported by voluntary subscription. A giant steel framework towers above older buildings of Middlesex, but no workmen are in sight. In Middlesex you watch Sampson Handley perform a splenectomy or equally radical surgery and learn of his devotion to the cautery. Following radical amputation of the breast with cautery, Handley leaves radium needles inserted in the supraclavicular and intercostal spaces for forty-eight hours.

One morning you take a long ride out to old Hammersmith Hospital, and there learn of plastic surgery from Sir Harold Gillies. If modern surgery has performed any miracles, certainly the reconstructive operations of Gillies with Wolfe grafts and tube flaps are such. You are impressed with the infinite patience of this surgeon. No artist could be more particular about the details of his work. For facial operations, he employs intratracheal anesthesia. Later, in St. Bartholomew's Hospital you have occasion to examine a patient on whom, for sarcoma, Gillies has excised the right rectus muscle with its sheath and a large section of the abdominal wall, replacing the lost tissue with a huge flap swung over from the left half of the abdomen, a truly massive graft, with excellent result.

Other surgeons you will meet, too numerous to mention. Your three months' course in London may be supplemented if you wish. The Fellowship of Medicine offers courses of six weeks' duration, in any specialty, with bedside instruction under competent men. But in England there will be no opportunity to practice surgery on the living patient and you may consider yourself fortunate if permitted to examine patients closely. The same is true, of course, for an Englishman who comes to America. Embarking on the English Channel, you feel that your time in London has been well spent, for many ideas of clinical importance have been impressed, many points of surgical technic, aside from a comprehensive review of anatomy and physiology.

In Berlin and in Vienna, post-graduate work is thoroughly commercialized. The Dozentenvereinigung attached to the University of Berlin corresponds to the American Medical Association of Vienna. Through payment of a stipulated fee to either of these organizations, you may have instruction in any branch of medicine or surgery, through as many weeks as you like—payment in advance, please. If you desire surgery, a Berlin surgeon will in his private Klinik permit you to operate on his private patients for one hundred and fifty dollars per month. That is, such a condition obtained until the recent shake-up by the Hitler regime.

You will not study in Germany, of course, without learning some pathology. For as pathologists Germans lead the world. In their larger charity institutions, autopsy on ninety per cent of deceased patients is a common record. You sign for work with Professor Ludwig Pick, influenced as much by his knowledge of English as by his reputation in pathology. Every day you perform one or two complete postmortems and hear Pick's discussion of eight or twelve cases, to you in English, to others in German. You feel disappointed that clinical records on each case are not better correlated

with autopsy findings, but learn that Germans love pathology for itself alone, not for its clinical application.

Evenings you struggle with the German language, in Berlitz School or under a private teacher. For even though many Germans speak English after a fashion, there are avenues of work closed to one who cannot speak German. Having acquired some knowledge of the language, you have the opportunity of studying microscopic gynecological pathology under Robert Meyer. An outstanding exception among mercenary colleagues, Meyer will accept no fee for instruction. Every afternoon you may spend three or four hours examining duplicate stained sections with this kindly old gentleman. You will scarcely receive a welcome unless you intend to stay six months or more.

Should you be interested in obstetrics or gynecology, a large field of clinical material is found in Berlin. You sign for several courses of two to four weeks' duration, some running concurrently. In Strassmann's Klinik there is opportunity to examine dozens of patients daily. Strassmann's treatment of pelvic carcinoma is interesting because unique. He uses radium in the peritoneal cavity, leaving a fistula after operation through which a platinum tube of radium may be inserted.

In Stoeckel's and Wagner's Kliniks you examine many patients, discuss therapy, and perform cystoscopies, for the cystoscope is here not exclusively the property of G-U specialists any more than we discard stethoscopes in favor of the internist. Here also you learn salpingography, with lipiodol the preferred fluid. In treatment of acute pelvic infections, you find the Germans ultra-conservative. X-ray therapy with kurzwellen (short rays) is the method of choice. In Wagner's Klinik is seen a 600,000 volt machine, the world's largest. Diathermy is also used.

In treatment of carcinoma, however, both Stoeckel and Wagner swing to the radical side. The Wertheim is Wagner's favorite operation for carcinoma of the cervix, even advanced cases, while for similar malignancies, Stoeckel employs the Schauta technic, radical vaginal hysterectomy. These operations are technical feats, beautifully executed, but with a high mortality, and the end results show no more cures than our radium therapy can boast—about twenty-five per cent of five-year cures. The anesthetic is frequently spinal. So much the better for the patient, for the Germans give very poor anesthesias with ether or gas.

In Stoeckel's Klinik you see a patient admitted in eclamptic convulsions. She is rushed to the operating room and there subjected to cesarean section. She recovers and the baby lives. Such radical treatment, long rejected in the United States, can nevertheless, in skilled hands, boast as low a mortality rate as we can show from conservative therapy. Obstetrics in Berlin, you learn, has not advanced further than in America. In a new hospital of modernistic architecture, well-equipped, women struggle through delivery in a ward of six beds, without benefit of anesthesia. Cesarean section is done on slight provocation. Patients are often allowed to sustain second or third degree lacerations without an attempt at episiotomy having been made. In the homes of the poor, operative deliveries are done under chloroform anesthesia.

Shocking to the newly-arrived American is the practice of operating without gloves. Sauerbruch, Strassmann, Wagner, and other famous surgeons, enter the peritoneal cavity with bare hands. Scrupulous pre-operative preparation of the hands, with frequent washings during operations, seems to accomplish all that rubber gloves can do, but you are not convinced. Another intriguing point of technic is the practice of suturing peritoneum to skin, by six or eight interrupted sutures, immediately after entering the peritoneal cavity. The German operating room is a huge room, well equipped, but set for several operations simultaneously. One patient under local or spinal anesthesia may have to listen to the snorting of another taking ether on an adjacent table. Your general impressions of German surgery are that the technic is excellent, the procedure usually radical, the operation more important than the patient.

In the use of mechanical appliances, Germans excel. Run out to a suburb of Berlin and spend a morning with Professor Kayser, and you see a large variety of cautery instruments in use. For advanced carcinoma of the breast, Kayser literally cooks the tissues by moving a cautery roller over the diseased area, then excises this tissue with a cautery knife. Von Lichtenburg, famous for his work with

uroselectan, may be observed removing a bladder tumor with cautery, the patient squirming and groaning under a "peri-dural" anesthesia.

No visit to Berlin is complete without meeting Professor A. W. Meyer, whose Chesterfieldian manner contrasts so strikingly with the gruffness of many Teutonic colleagues. Meyer shows you, with pardonable pride, three or four thrombi removed from the pulmonary artery in moribund patients—result: four patients still alive.

For bored European surgeons, plastic surgery affords a new hobby. E. N. T. specialist or general surgeon, they love it. One day you visit the Klinik of Professor Halle, noted in the nose and throat literature, and find him remodeling the breasts of a young woman. For slight indication or none at all, a German woman may be subjected to a prolonged anesthesia (often five hours) and this tedious procedure. As usual, one cannot criticize the operative technic.

Berlin has accepted a new intravenous anesthesia, evipan. Injected by vein until the patient falls asleep, this drug produces anesthesia for fifteen to twenty minutes, apparently ideal for use in curettage of the uterus, reduction of fractures, or other quick operations. Germans claim to use evipan for appendectomies and even gastric resections! In a series of approximately ten thousand cases, there have been three deaths reported.

En route to Vienna you spend a day in Prague, that historic old city of Czechoslovakia. A visit to the Women's Klinik of Professor Jerie is worth while. Here English is practically unknown, although American journals are seen on the library shelves. You are fortunate enough to find a young interne who speaks German. Technic here is found similar to that of Berlin, with the important exception that radical pelvic surgery has been abolished in favor of radium for the treatment of carcinoma. Lumbar anesthesia is quite commonly used.

Vienna is disappointing to the surgeon. Government regulations bar foreigners from treating patients. You may join the American Medical Association, whose office in Alserstrasse is headquarters for most Americans. Courses are offered in everything. You visit huge Allgemeiner Krankenhaus, a four thousand bed hospital, and sit for hours at a time under Professor Chiari, eminent pathologist. Here, as in Berlin, pathology is a favorite study.

If fortunate enough to hear lectures by Finsterer on gastric surgery, you feel amply repaid for having visited Vienna. His appearance that of a seedy pawnshop keeper, this old gentleman will in very good English report long series of peptic ulcer, more than ninety per cent of them cured by resecting two-thirds of the stomach. He insists that radical surgery turns the trick. It is a privilege to watch the meticulous technic of Finsterer as he resects a cecum for carcinoma. Local anesthesia is his favorite, for by its use he claims to eliminate shock. Time means nothing to him. Three or four hours is the average time for a resection.

Gynecological surgery by Weibel and others is found similar to that in Berlin, radical. As in Germany, anesthetics are poor. There is the same gruffness of manner, the same exaltation of the surgeon high above his patient and his assistants.

Adverse impressions regarding socialized medicine accumulate as you travel through Europe. In England, a university professor who sees only hospital and clinic patients, tells you the panel system is good for the poor man. But a young physician who has tried panel practice vows he would rather forsake the practice of medicine. One cannot, he protests, do justice to the large number of patients a doctor must see in order to earn a living. Income of doctors is not in proportion to quality of work, but according to number of patients seen. Abuses are numerous. The doctor who will not give his patients sick leave upon request, finds his panel dwindling away to a less scrupulous man.

In Berlin, you are told that the insurance societies have much money to spend for handsome office buildings and kliniks, but very little for drugs and doctors. In a well established private klinik such as Strassmann's, a weekly report is sent the Versicherungen (insurance societies) regarding the number of patients treated. Not until its check is received does the klinik know what amount to expect, for the weekly receipts are pro-rated. About $1.50 per day is paid the klinik for each hospitalized patient, but for operation on any patient there is an extra fee. This explains why so many patients are seen in the klinik with operable conditions, treated by non-operative methods. It

is difficult to explain, however, why one sees an occasional case of advanced carcinoma, treated by some physician for a long time, sent to the University Hospital when inoperable. Is it because the poor practitioner needed this patient to swell his roll of patients, or was he too busy to examine the patient? For an obstetrical case, the German surgeon receives about $5.00; for major operations, he is fortunate to get $25.00.

Your German teacher in the Berlitz School, a little man who wears thick-lensed spectacles because gassed in the war, believes the insurance system a good one. He adds, however, that he carries insurance in the Versicherung which permits choice of doctor, whereas the Krankassen give the patient no choice of doctor.

University appointments are at a premium in Germany, for on the university staff a young M. D. is assured of at least a living income, whereas outside he is at the mercy of insurance societies.

In Prague, your bus driver points proudly to the magnificent structure which serves as headquarters for the Health Insurance Societies. A young surgeon tells you the system is disliked by the doctors, but is good for the patients. A doctor cannot practice without appointment by the Health Insurance Societies.

On the train through Switzerland, a middle-aged woman who holds a professorship in the University of Vienna—she speaks perfect English—admits that she is insured in an Austrian Health Society, by compulsion, but that she has a private doctor of her own, as have all her friends. Apparently, the insurance system does not hold favor among educated Austrians.

Whatever the future may hold for American medicine, you feel that state medicine is far worse than our present system. And although they have much to teach us, you say good-bye to European surgeons with a feeling that surgery in the United States is unsurpassed.

SMALLPOX

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El Paso, Texas.

(Read before the El Paso County Medical Society November 27, 1933.)

Smallpox, or variola, is an acute contagious disease, characterized by high fever and followed in regular order by an eruption, a papule, a vesicle and a pustule. The disease has been known from the earliest antiquity. Its known history goes back to the tenth century, when it ravaged China and other Asiatic countries. It spread to Europe in the thirteenth century, where it raged with such virulence that whole cities were almost depopulated. It appeared in the West Indies in the fifteenth century and from there was carried to Mexico by Spanish soldiers, where it spread rapidly. During the next fifty years it carried off over three and a half million of the population. It first appeared on the Atlantic coast of what is now the United States in the year 1649. It soon spread to the Indians and whole tribes were almost wiped out.

Smallpox is generally divided into four clinical groups: the hemorrhagic or so-called "black smallpox," the confluent, the discrete, and varioloid. These terms refer to the severity of the disease only. In the hemorrhagic form the vesicles fill with blood instead of pus, giving the patient the appearance of being covered by "blood blisters." There is also often hemorrhage from the various mucous surfaces of the body. Sometimes, where the patient dies before the eruptive stage is reached, there may be splotches of what appears like purpura hemorrhagica, instead of blood-filled visicles. In Europe, where the disease in its most virulent form swept over the country during the Thirteenth Century, it was known as the "black death."

Next in order comes the confluent form. In this form the pustules are filled with pus and they stand so close together that they coalesce and form a solid pustule. This is especially true of the face, where the eruption is always thickest. Then we have the discrete form, which is the mild form of smallpox. It is characterized by a mildness throughout and the presence of very few pustules. I have known cases in which there were less than a dozen

pustules on the entire body. And now we come to varioloid, which is nothing more than a case of smallpox modified by a previous vaccination. This is nearly always very mild, depending on how long it has been since there was a successful vaccination. There is no difference in the contagiousness of the various clinical forms. A mild attack of varioloid is fully as contagious as the most virulent case of confluent smallpox. The germs of smallpox soon die if they are exposed to the open air and sunshine. This is especially true of our arid western country, where there is much bright sunshine. On the contrary, if the germs be packed away in a dark close place, they will retain their vitality for many months. The following story, which I know to be reliable, will illustrate this statement. About forty-five years ago a cowboy rode up to a ranch house in New Mexico, very ill with smallpox. He was placed in an outhouse, a distance from the ranch house proper, and there he died, a few days later. He was buried and the bedclothing in the room where the man died, was stuffed down into a large box and the room was closed. Having a use for the house some eighteen months later, the ranchman ordered a couple of Mexican ranch hands to pile the bedding outside and set fire to it. Unfortunately, about the time they were ready to apply the match, along came half a dozen Apache Indians. The Indians begged for the blankets and got them. They also got an epidemic of smallpox that is remembered on the reservation to this day. Incidentally, the ranchman came near going to Federal prison for giving smallpox to the wards of Uncle Sam. Had that clothing been exposed to air and sun three days, not an Indian would have contracted the disease.

Smallpox is generally ushered in by a chill which is always followed by a very high fever. There is aching of the body, similar to that caused by influenza. The aching is especially pronounced in the lumbar region. The temperature shoots up at once to one hundred and five or six. This sudden high temperature is the only diagnostic symptom we have in the febrile stage of the disease. I once diagnosed a case as smallpox, the first day of the disease, because the temperature was one hundred and six. There is often active delirium in this stage of the disease and this is nearly always true of drunkards. On the second to the fifth day, the eruption begins to appear: if on the second or third day, a very severe attack may be predicted; if delayed to the fourth or fifth day a milder form of the disease may be expected. Following the appearance of the eruption, the temperature drops and the patient feels a period of well-being. Following the eruption we next have in regular order papules, vesicles, and pustules. The pustules are always irregularly round in shape and are hard and firm to the touch and yellowish in appearance. At the eighth to the twelfth day, desiccation begins. The pustule assumes an umbilicated appearance and begins to shrivel up. A scab forms and this finally slips off and leaves an ugly pit, which remains for life. In discrete or varioloid cases, there is little or no pitting. Confluent cases are the ones that pit badly. About the time desiccation begins in these cases there arises from the patient's body an odor that smells to high heaven. The patient is almost literally rotten and is certainly a most deplorable sight. Blindness sometimes results from this form of the disease. I saw many cases in Mexico when I was in practice in that country in 1893. Up to about that time smallpox was as common in that country as are colds in this country in winter time. It was considered a child's disease, and justly so, because the adults all had the disease in infancy. At that time very little attention was paid to the disease, for two reasons: (1) The disease had been endemic there so long that the people had built up an immunity, with the result that the attack was generally mild and very rarely proved fatal; (2) the spirit of fatalism among the peon classes. They argue that if it is God's will to take the child, He will do so and why should they worry about it. Many times I have been called into homes to see a patient suffering from some other disease and have found a child with smallpox and they thought so little of the matter that I was not asked to prescribe for the child. More often they did not even mention the matter of the child's having smallpox.

The diagnosis of smallpox is not always easy; especially during the febrile stage. The fever and aching resemble those in influenza, tonsillitis, measles, and several other diseases. As I pointed out before, there is only one diagnostic point at this stage and that is the very high fever from the start. If the case is going to be

mild in character, even this point is lacking. The public expects the practitioner to know and not to guess, and woe betide him who diagnoses a case of smallpox as something else and lets the case get away from him and scatter the disease far and wide. In 1897 there was considerable smallpox in El Paso, amounting almost to an epidemic. At that time the city health officer was a pioneer physician and a man of ability in his profession. He was called one day to see a man and found him sitting up. He had a few pustules on his face and his employer had sent him home with instruction to call in the city health officer. The health officer pronounced the case a mild chicken-pox and told the man he might return to work in a day or two. The man decided to visit a relative in southeastern New Mexico and took the train when he had possibly not more than half a dozen small pustules on his face and there were less than a dozen on the man's whole body. He had been vaccinated twenty-eight years previously, with a good take. His case was extremely mild, yet he was a carrier, just as though he had a case of the most virulent form, and he scattered smallpox all over west Texas and southeastern New Mexico. Many deaths and much suffering resulted. Needless to say, the health officer came in for a lot of caustic criticism. He was lambasted unmercifully by the press. I have made mistakes in differential diagnosis between smallpox and other diseases and I probably will do so again. Others in this society will probably do the same.

The following two cases will illustrate the ease with which mistaken diagnosis is made. Some years ago, when the late Doctor Klutz was city health officer of El Paso, I had charge of the eruptive hospital. We were running at that time from twenty to forty-five cases continuously. One morning, as doctor Klutz was coming down to his office, he was called in to see a young man and diagnosed the case as smallpox and ordered him to the eruptive hospital. He phoned me what he had done and I saw the man that afternoon. He was in the pustular stage of what appeared to be a rather mild attack of confluent smallpox. The pustules were very thick on his face but did not coalesce. Next morning I decided there was something very peculiar about his case and I questioned him. He admitted that he was just well of a chancre. He had pox, but not smallpox. The pustules on his face went through all the changes of those of smallpox and, after the scabs left his face, he was pitted exactly like a case of smallpox. Sometime later I was called to a cheap "flop house" on south El Paso street, which was patronized mostly by dope fiends. I found a large, dark dormitory filled with cots that rented for ten cents a night. Over in one corner lay a man on a cot and his face appeared pretty well filled with papules. I hesitated to send him to the eruptive hospital and finally I called in Dr. Klutz and we looked him over and decided to send him out. Next morning when I called at the hospital, I decided that this man did not have smallpox, but I had to confess that I was unable to make a diagnosis until the superintendent remarked that this was the lousiest hobo he had ever seen. Then I knew what ailed the man. Stupefied by opium, the lice literally swarmed over his body and bit his face in such numbers that they raised papules. The joke was too good to keep and I told it, at our next society meeting, much to the disgust of Doctor Klutz.

Smallpox has been mistaken for chickenpox, and vice versa, more than any other disease. This is especially true of the mild form of smallpox. Anders says, "There is nothing more difficult to differentiate between than a case of chicken-pox and a mild case of smallpox, in the pustular stage." There are three points of differentiation which, if followed closely, will always guide the diagnostician aright. The first two I regard as infallible: (1) The pustule of smallpox is multilocular and that of chickenpox is unilocular. If in doubt about the diagnosis, puncture the pustule with a sterile needle. If it is chickenpox, there will exude a drop of clear serum, the pustule will collapse and the covering will drop down flat. If it is smallpox, there will exude a drop of fluid, but the pustule continues to stand up "like a knot on a log. (2) The pustules of smallpox are always irregularly round in shape. On the contrary, many of the pustules of chicken-pox will be found elongated and will present other irregularities in shape. (3) Smallpox pustules are always most abundant on the face and hands and that portion of the body exposed to the air. Chicken-pox pustules are more abundant on the back and on that portion of the body covered by the clothing.

"Once in a blue moon" you will find a case of chicken-pox where the vesicle is filled with yellow pus instead of a clear fluid. Cases of this kind are very liable to be diagnosed as smallpox. The puncture test and the shape of the pustules will settle the diagnosis. I have never seen half a dozen cases of this kind. They are rare.

There is no specific treatment of smallpox. No case of the disease is ever shortened or rendered milder by any treatment. If the case is of the hemorrhagic type, there is but little hope. Ninety-eight per cent of them die. Over fifty per cent of these cases die before the disease is fully developed. Confluent cases vary in mortality from fifteen to thirty per cent. Discrete cases and varioloid cases are mild and they always get well, unless complications occur.

In the febrile stage, the disease is best treated as if it were influenza. I have tried all kinds of unguents and washes for the body, with little or no benefit. An antiseptic gargle of some kind is needed for the throat. A few drops of sterilized castor oil placed in the eyes is the best remedy for the sore eyes that always accompany this disease. A solution of carbolic acid in camphor water will sometimes greatly relieve the intolerable itching of the body. It is best used as a spray. Old people and drunkards need alcoholic stimulation. Pregnant women nearly always abort and die. Some claim that it is possible to have smallpox twice. I have never seen such a case and I am skeptical of the truth of such claims. Evidently a mistake in diagnosis was made somewhere along the line.

Eternal vaccination is the price we pay for protection from this terrible disease. When Jenner discovered vaccination he conferred a great favor on mankind. I have seen hundreds of cases of smallpox and I have yet to see a person die who was ever successfully vaccinated. Yet, there are to this good day misguided fools who persist in opposing vaccination. "Against ignorance and superstition, the gods themselves strive in vain."

PUBLIC HEALTH NOTES

J. ROSSLYN EARP, DR. P. H.
Director New Mexico State Bureau of Public Health.

TYPHOID IN TAOS

The epidemiology of typhoid fever in rural New Mexico is a science sui generis. Elsewhere the problem is to find the cause of an outbreak of typhoid fever. With us the problem is to weigh the several obvious causes and to try to decide which are more important and which less important. He who stops his inquiry when the first possible source of origin is perceived, has failed.

A nice example of this was provided recently by the villages of Ranchos de Taos and Llano in Taos County. Dr. C. H. Douthirt, state director of county health work, responding to a call for help from the first of these villages early in October, has spent many days investigating the outbreak and has put down some of his findings in the New Mexico Health Officer for November, 1933.* Four families were using water from polluted wells; fifty-one out of the sixty-two cases of typhoid fever admitted having drunk water from irrigation ditches. A superficial judgment would decide that the cases all or mostly came from polluted water. Unfortunately we do not know what proportion of the uninfected population in that district drink from irrigation ditches. But it may well be that five out of six healthy people would also admit having drunk from irrigation ditches. In that case the significance of such a history would disappear. Moreover, no B. coli were found in the ditch water. The ditches are thus not permanently polluted and the onset of the cases is too far spread for many of them to have arisen from a temporary pollution. Again, here is one ditch on which are two families with typhoid fever. Several families using the same ditch have had no typhoid fever. And, of the two families who suffered, those downstream were ill eleven days before those upstream. And so the evidence accumulates that, whereas some of the cases were due to water-borne infection, many others were not.

Many homes were filled with flies; windows were unscreened; privies usually wide open at the back and one or both sides. It could hap-

pen that some of the cases ate food infected by flies.

And undoubtedly many were due to contact with sick or convalescent patients.

Such outbreaks spring from a chronic carrier, are spread and kept in action by temporary carriers. To prevent and control them, it is necessary to detect the carriers. To do so the stools must be passed within twelve hours of reaching our laboratory. But stools cannot be sent from Taos to Albuquerque in twelve hours. Some day we shall have a mobile laboratory that will carry the bacteriologist with necessary equipment over the state. That day will see the beginning of real control of our rural typhoid fever.

*Copy will be forwarded gratis to any reader of these notes on request to the State Bureau of Public Health, P. O. Box 711, Santa Fe, New Mexico.

DISTRIBUTION OF ARSPHENAMINES

In November, 1933, we began the distribution of arsphenamines and other remedies for syphilis, purchased through a grant from the Federal Relief Administration. Physicians have made application through local relief committees for these drugs to be used in the treatment of indigent patients. On receipt of orders from local committees, the state bureau of public health has purchased the drugs and had them sent directly to the physician. The amount distributed from November, 1932, to November, 1933 (inclusive), is shown in the following table:

County	No. of doses	County	No. of doses
Bernalillo	580	Quay	199
Chaves	215	Rio Arriba	170
Colfax	78	Roosevelt	22
Curry	190	Sandoval	9
De Baca	91	San Miguel	176
Dona Ana	80	Santa Fe	267
Eddy	98	Taos	40
Guadalupe	60	Valencia	323
McKinley	70		
		Total	2,668

These 2,668 doses have cost the relief agencies $585.24, or at the rate of 22 cents per dose. Some fifty doctors have donated at least $5,000 worth of service. Would that it were possible to estimate how much this work has saved to the state of New Mexico in the prevention of the spread of infection, the restoration of earning capacity of the infected, and the avoidance of invalidity and untimely death!

Fourteen counties in the state have made no application for these drugs. It so happens that in one of these fourteen counties Doctor Walter Clarke of the American Social Hygiene Association has just completed a survey. His report has not yet been received. However, it is safe to say that in two weeks he uncovered enough untreated syphilis in this one county to require more than 2,668 doses in the course of thirteen months. Thus we have a measure not only of accomplishment, but also of what still remains to be accomplished.

THE MEDICAL AND SURGICAL ASSOCIATION OF THE SOUTHWEST.

MINUTES OF THE NINETEENTH ANNUAL MEETING

El Paso, Dec. 7, 8 and 9, 1933.

The opening session was called to order, at 10.40 a. m., Thursday, Dec. 7, in the El Paso Club lounge room, tenth floor of the Hussmann Hotel, by Dr. F. D. Vickers, President.

Dr. J. A. Pickett, President of the El Paso County Medical Society, gave the welcome address, in substance as follows: The Association has been coming to El Paso off and on for nineteen years. Some faces usually seen here will be missed; the passing of some will be mourned; the unavoidable absence of others will be regretted. The local committees have worked diligently to prepare an enjoyable and profitable program; it is hoped that all in attendance will enjoy every minute of their stay and be glad to return.

Dr. R. D. Kennedy, of Globe, former president of the Assocation, gave the response on behalf of Arizona.

Dr. Frank Stovall, of Sherman, N. M., gave the response on behalf of New Mexco; he claimed to have practiced longer in New Mexico than any doctor now living in the state.

Dr. Crum Epler, of Pueblo, Colo., fraternal delegate from that state, brought greetings and invitation to the members to visit the Colorado State Medcal Association meeting.

After announcements regarding clinics, the meeting and other matters, the regular scientific program was taken up, beginning with the Symposium on Allergy.

The first paper was by Dr. Orville H. Brown, of Phoenix, on "Food Allergy." He stated that he had abstracted over 500 papers in preparing the paper as an introduction to the study on allergy. He urged the members to listen carefully to all the papers and get the different ideas about allergy. To illustrate the superficial regard which the average doctor has for allergy, he recalled a meeting as large

as this in which the question was asked as to how many there present used the preliminary test for allergy before giving tetanus antitoxin. Four said they did, and three of them are at this meeting. If a group of doctors, supposedly intelligent, will neglect such a simple and important matter as this it is certainly a timely subject. With this introduction, Dr. Brown summarized his paper, which will be published in full in this journal in the near future.

The discussion was opened by Dr. G. Werley of El Paso, continued by Drs. K. D. Lynch (El Paso), W. W. Waite (El Paso), L. O. Dutton (El Paso), H. A. Miller (Clovis), R. D. Kennedy (Globe), J. M. Meason (Chandler), Henry Stovall (Sherman), with Dr. Brown closing.

Following the morning session, the meeting adjourned for the Clinical Luncheon. At this luncheon, Major E. Raycroft, of the William Beaumont General Hospital, spoke on "Impressions of China." He stated that he has just returned from a three years term of service in China, and that his remarks were purely personal impressions and not official in any sense. He was glad to go and was glad to return. China is a country of great extremes, either up or down. Peking is 86 miles from the coast and only six feet above sea-level; in the interior some of the world's highest peaks are to be found. China has about four million square miles to three million in the United States; it has 400,000,000 people to our 125,000,000. People are packed into small villages with waste land between. It is a country of extreme poverty and fabulous wealth. Sixty-five per cent of the people are starving. Laborers exist on food which would cost one cent a day in this country. Some employers are very liberal and allow them two cents a day for food. Saw very few emaciated people; you do not see the starving ones. One prominent Chinese general, who resisted the invasion by the Japanese, had a private army of 750,000 men, 125 airplanes, and a munition plant valued at fifteen million dollars. The Japanese destroyed personal property belonging to him and valued at 135 million dollars gold. Besides this he had deposited in foreign banks, 42 million dollars gold, and in Chinese banks 95 million dollars gold. That is what he is known to have had. He got this by collecting taxes in advance,—in one known instance taxes were paid for the year 1982. A new government may wipe out all taxes and start over again. The Chinese soldier gets a half cent gold a day.

There are three types of physician in China: (1) the foreign physician; (2) the Chinese foreign trained physician; (3) the Chinese doctor. The foreign physicians are found in the three medical centers of Shanghai, Chengsu and Peking. The Chinese foreign trained physician does not relinquish his native practices. The native Chinese doctor follows a very primitive practice. There are about 500 mission hospitals in China, many doing excellent work; their greatest difficulty is lack of control over the Chinese patients. The idea that Chinese pay their doctors to keep them in health is a fable. The doctor does not see the high class woman patient. The great wall of China was described and the differences between Chinese and Mongolians described also. The plight of China is a powerful demonstration of a country without defense against aggression from without.

The afternoon session opened at 2:10 by Dr. Vickers. The first paper was by Dr. R. A. Wilson, of Tucson, on "Hay Fever."

Dr. F. F. Smith, of Raton, who had the next paper, could not be present and his paper was read by Dr. George Turner of El Paso, its title being changed to "Allergy Disease."

Dr. Turner opened the discussion on the two papers; it was continued by Drs. C. S. Kibler (Tucson), E. W. Phillips (Phoenix), Hilgartner (Austin, Texas), with Dr. Wilson closing.

Dr. C. S. Kibler, of Tucson, presented his paper on "Methods of Allergic Study." Discussion of this was opened by Dr. L. O. Dutton of El Paso, being continued by Drs. Leslie M. Smith (El Paso), and R. A. Wilson (Tucson), with Dr. Kibler closing.

The paper by Dr. Howell Randolph, of Phoenix, on "Insect Dust as a Cause of Hay Fever and Asthma" was read by title.

Dr. David M. Davis, of Phoenix, presented his paper on "Allergy in Relation to the Urogenital Tract."

Discussion was given by Dr. A. W. Multhauf, of El Paso; there was no closing discussion.

The paper by Dr. E. A. Gatterdam, of Phoenix, on "Allergy in Relation to Lesions of the Nose and Throat," was read by title, in the absence of the author.

Dr. J. E. Sherman, of El Paso, then presented his paper on "Allergy in Tuberculosis."

Discussion of this was given by Dr. Mott Rawlings, of El Paso, with no closing discussion.

Dr. J. B. Littlefield, of Tucson, gave his paper on "Reactions in Blood Transfusions."

Discussion of this was opened by Dr. Victor Randolph of Phoenix; discussion was continued by Drs. C. S. Kibler (Tucson), Mott Rawlings (El Paso), W. W. Waite (El Paso), F. D. Vickers (Deming), with closing discussion by Dr. Littlefield.

The evening program of Thursday, Dec. 7, was in charge of the medical staff of William Beaumont Hospital. A supper was first served cafeteria style in the General Mess Hall to about 150 members and guests who gathered for this high light of the meeting. Following this, a Clinical Program was given in the Red Cross House, with Colonel Pipes presiding.

Dr. Pickett first introduced the president and president-elect of the Association, and expressed the thanks of all those present for the excellent dinner. Colonel Pipes expressed the pleasure of the staff at having the members of the Association and of the El Paso County Medical Society present; they are very happy in the cordial relationship existing between the hospital staff and the El Paso County Society, and it is a part of the training of their

medical officers to attend the society meetings. The Clinical Program consisted of four numbers:

1. A Foreign Body in the Mediastinum, presented by Major Governeur V. Emerson, M. C. It was presented because of the unusual nature and location of the foreign body. Patient was admitted by transfer on Oct. 16 for mental observation. Two days after admission he had a mental explosion and introduced a mechanical pencil through the suprasternal notch; the wound was first thought to be superficial and of no importance; later x-ray examination showed the pencil introduced out of sight into anterior mediastinum and it was decided to remove this foreign body. The cervical route was chosen, an incision being made parallel to the inner border of the sternomastoid muscle and into the mediastinum. The pencil was located and removed without undue difficulty though there was some encroachment on the superficial blood vessels, a large one being practically eroded through. Drainage by two Penrose tubes. He ran a stormy course from mediastinitis, with white count up to 19,000 and 82 per cent polynuclears. The wound gradually closed and finally healed. (X-ray films before and after removal were shown and patient demonstrated.)

Major Edward J. Stricker, M. C., discussed the case from the psychiatric standpoint. In addition to being a surgical peculiarity, the patient was an unusual mental problem. His psychosis was due to cerebro-spinal syphilis. We have been taught that negroes are not subject to involvement of the central nervous system with syphilis,—at least to any extent. In this area there is a high concentration of syphilitic risks. This patient was not known to have syphilis until picked up on furlough and hospitalized here. He is a typical case of central nervous system syphilis, with positive spinal fluid Wassermann and paretic gold curve. His mental state is a little peculiar, being more like that of dementia precox with delusions. His delusions caused the attempt at suicide. With regard to treatment, he would come under the head of cases treated by malaria, but his physical condition will not warrant this. He has been given the old standby of mercurial treatment.

2. Major Chas. L. Gandy, M. C., presented a case of diaphragmatic hernia. This condition until recently was thought to be rare; it is now being reported with increasing frequency. He described the types of hernia, the symptoms, diagnosis and treatment. The patient was a soldier, admitted 1:30 a.m., May 30, 1932, following an auto accident. He was in profound shock, pulse 160 and feeble, respirations 38 to 42, blood pressure 40/20. Pain in the back, extremities pale and cold, nausea and pain in the chest. Normal breath sounds on the right; on the left no sounds below the third interspace. Given shock treatment; reacted fairly well, the blood pressureby 4 a.m. being 84/55, and later 95/60. Pulse continued rapid. Symptoms continued to improve. X-ray showed fractures of transverse processes of second, third and fourth lumbar vertebrae. Chest x-ray taken on June 1st showed evidence of herniation of stomach into the left chest; later x-ray showed the splenic flexure also in the chest. He made a good clincal recovery from the fractured vertebrae. However, nausea continued with attacks of colicky pain in the upper left abdomen. Operation in the late fall was contemplated but a number of cases of influenza in the hospital caused this to be postponed. On Feb. 3 the phrenic nerve was paralyzed by alcohol injection, this method being chosen in preference to section or avulsion; following this the attacks of pain and nausea subsided. Almost a month later the final operation for the hernia was done. Approach was by the abdominal route. Defect which easily admitted the closed fist was found in the left leaf of diaphragm. Almost all of the stomach, the splenic flexure, almost one-third of the ileum and a portion of left lobe of liver were in the chest cavity. These abdominal viscera were not adherent in chest and were restored to their normal positions, and the defect in the diaphragm was repaired. Convalescence was uneventful. In the course of healing, expansion of the left lung occurred with some pleural friction and development of pleural fluid. This disappeared and by April 30 patient was discharged. He was checked in November and everything found normal. (Slides of x-ray examinations were shown and patient demonstrated.)

3. Major James P. Crawford, M. C, showed moving pictures taken by himself on a trip to Culion Leper Colony in the Philippines. He first read some general remarks on leprosy in these islands. There are 15,000 lepers in the Island of Culion. He described the method of making the examinations for leprosy, laying particular stress on the changes in pigment and the areas of anesthesia. Tissue is removed and the under surface of the skin is scraped for the bacilli. Nothing except leprosy will cause the characteristic areas of anesthesia. (The moving picture was very graphic, showing all stages and forms of leprosy, and the accompanying talk by Major Crawford was highly enjoyable.)

4. Major Henry C. Dooling, M. C., read a paper on acute atrophy of the liver and gave account of two cases observed. Typical acute atrophy of the liver is rare, even in large hospitals and two cases having occurred here within six months is considered of sufficient interest to report.

The first patient had been in the hospital twice before, the first time with gonorrhea and the second time with chancroids. He had three negative dark field examinations and two Wassermann reactions reported negative. Had received injections of tartar emetic but no salvarsan. Was returned to duty in Nov., 1932; present illness developed seven weeks later. On Jan. 7, he had chills, fever and general body aches, the transfer diagnosis being influenza. Temperature was 99.4 with slight jaundice of the sclerae; liver was palpable 3 cm. below the costal margin; no tenderness; spleen not palpable. Urine was negative. White count was 6000, with 59 per cent polys. Wassermann positive. Jaundice became deeper and on the 12th he began to vomit and this continued. On the 14th delirium developed and

he became maniacal, pounding his head against the wall and resisting attempt to hold him in bed. Was practically afebrile at this time. Seven days after first examination, liver was not palpable, jaundice was marked and increasing; white count was 12,300, 64 per cent polys. On Jan. 15, temperature was 103.4, respirations rapid and pulse thready. Death that day. Autopsy showed bile stained tissues, subperitoneal hemorrhages, marked hemorrhage of omentum, bulk of liver greatly reduced, weight being 1150 grams, surface mottled, numerous superficial hemorrhages, gallbladder empty. Diagnosis: Acute yellow atrophy with syphilis secondary.

The second case came in six months later. He was 44 years old. Had secondary syphilis at a former admission. He had received eight injections of arsphenamine, completed five weeks prior to admission. On June 22, was re-admitted with digestive complain, distention in stomach and pain in upper right quadrant. Pain was worse two days prior to admission. Eyes yellow. Did not appear acutely ill. Was obese, weighing 205 pounds. Skin and sclerae were jaundiced. Had general adenopathy. Heart and lungs normal, tender over upper right quadrant, liver not palpable. Urine negative. Absence of bile in stools. In the hospital three days; vomited on evening of third day and continued to vomit. Following night patient was found wandering about the ward, irrational, breathing rapidly, sweating, with weak pulse. He collapsed the following morning, went into coma and died. Autopsy findings were quite similar except the liver. Skin was icteric. Bile stained transudate in the peritoneum with hemorrhages. Liver weighed 2150 grams, being twice as large as the previous one. The lower border was below the costal margin, but with wrinkled appearance and mottling of the surface. The gallbladder had a small amount of colorless material. Diagnosis of acute liver atrophy with syphilis secondary.

The emphasis in these cases was laid on the evidence of syphilis.

Acute atrophy is characterized by a marked decrease in the size of the liver, acute and widespread necrosis of the liver cells, clinical jaundice and terminal stage with violent cerebral symptoms. It is not a terminal process of other forms of liver disease. It usually occurs in previously healthy livers. It is of toxic origin, but the toxin is not known. It is not bacterial. Syphilis seems to have a close connection. Ten per cent of the jaundice cases in secondary syphilis will go on to acute atrophy. Has followed alcoholic sprees and chloroform poisoning.

An interesting x-ray and pathological exhibit was on display, in charge of Major Williams and Major Crawford, consisting of the following:

X-RAY FILMS

SKULL

Sella—hypophyseal tumor.
Communicating accessory sinuses.
Macrocephalic skull.
Large frontal sinuses.
Fractures (two cases).
Ethmoid, injury of orbital wall.
Paget's Disease.

SPINE

Old fracture of cervical spine.
Dislocation of cervical spine.
Rudimentary vertebrae.
Old healed fracture of spine.
Sacralization, bilateral.
Epiphysitis.
Cervical ribs, bilateral.
Rudimentary ribs.
Lordosis, kyphosis, scoliosis.
Multiple fractures (scapula and ribs).

CHEST

Aneurysm.
Mediastinal tumor.
Carcinoma of bronchus.
Bronchiectasis (cylindrical).
Bronchiectasis (saculated).
Bronchiectasis (fusiform).
Carcinoma, bronchus.
Healed miliary tuberculosis.

BONES AND JOINTS

Bursitis (both shoulders).
Charcot joint.
Osteomyelitis of right tibia (specific).
Osteomyelitis of left femur.
Exostosis, multiple.

GASTRO-INTESTINAL SERIES

Duodenal ulcer (chronic).
Calcified mesenteric glands.
Diverticulosis.
Rupture (traumatic) left diaphragm.
Diverticulum of eosophagus.

GENITO-URINARY TRACT

Calculi, left kidney and ureter.
Polycystic kidney.
Calculi of bladder.
Calcified spleen.

FRACTURES

Fracture (scaphoid and styloid process) wrist.
Fracture and dislocation of wrists.
Resection of right elbow after fracture.
Fracture (compound comminuted).
Medial sesamoid (divided).
Medial sesamoid (divided).
Compound comminuted fracture.

MISCELLANEOUS

Fetus (abnormal position (microcephalic).
Breech presentation.
Abdominal aorta (calcification of).
Osgood-Schlatter's Disease.
Pneumo-peritoneum (accidental).

PATHOLOGICAL EXHIBIT

Leprosy bacilli.
Thick smear for malaria showing crescents.
Amoebic abscess of liver.
Primary carcinoma of lung.
Colon, chronic ulcerative type, final stage.
Tubercle bacilli, 20 days growth on potato media.

The morning session of Friday, Dec. 8, was called to order at 10 a. m. by President Vickers, for the Symposium on Tuberculosis.

The first paper was by Dr. Orville Egbert, of El Paso, on the subject "Is Our Present-day Knowl-

edge Adequate for the Control of Clinical Tuberculosis?" This was an excellent review of the present-day treatment of the disease, laying the foundation for more definite handling of various phases of the subject by the papers to follow.

The paper on Broncho-Moniliasis, by Drs. John W., Robt. S. and Zebud M. Flinn, of Prescott, was presented jointly by Drs. John W. and Robt. S. Flinn, each handling a definite phase of the subject.

The paper by Dr. W. Warner Watkins, of Phoenix, on "Chronic Inflammation in the Lung, with Special Reference to Silicosis," was then presented.

The discussion on these three papers was opened by Dr. W. W. Gay of El Paso; it was continued by Drs. J. E. Sherman (El Paso), C. W. Mills (Tucson), J. J. Beatty (Tucson), E. W. Phillips (Phoenix), Victor Randolph (Phoenix), R. A. Wilson (Tucson), F. D. Vickers (Deming); closing discussions were given by Drs. Egbert, John W. Flinn, Robt. S. Flinn and Watkins.

Upon adjournment, Clinical Luncheon was served in the Gold Room of the hotel, following which Dr. Martin B. Tinker, of Ithaca, N. Y., gave the luncheon address on "Tuberculosis of the Thyroid" following this by a lantern slide talk on "Malignancy of the Thyroid." Motion was made to extend to Dr. Tinker, a rising vote of thanks for his attendance at the meeting and for his splendid presentations to the program. This was carried and an intermission of fifteen minutes taken.

Following this, the program was resumed in the Gold Room, the session being called to order at 2:40 p. m. by Vice President David M. Davis, of Phoenix, who conducted the afternoon session.

In order to accommodate some patients who were to be demonstrated, the paper by Drs. John W., Robt. S. and Zebud M. Flinn, of Prescott, on "Heliotherapy in the Treatment of Tuberculosis of Bones and Joints" was called at this time. This was given jointly by Drs. John W. and Robt. S. Flinn, each handling a phase of the subject.

The discussion was opened by Dr. Frank Goodwin, of El Paso, who showed a number of patients surgically treated. Closing discussion was by Dr. John W. Flinn.

The group of papers on Childhood Tuberculosis was to have been introduced by Dr. Rosslyn Earp, Director of the Bureau of Public Health for the State of New Mexico, on "Childhood Tuberculosis as a Public Health Problem." Dr. Earp had been taken ill while enroute to the meeting and was unable to be present; his paper was read by title.

Dr. Chas F. Barley, of Tucson, gave his paper on "Childhood Tuberculosis; Etiology and Diagnosis."

Mr. M. K. Wylder, of Albuquerque, read his paper on "Childhood Tuberculosis, Discussed with Special Reference to Preventive Measures."

The opening discussion on these papers was by Dr. T. J. McCamant of El Paso, Dr. Mott Rawlings of El Paso and Dr. Harry Leigh of El Paso. Closing discussion was given by Dr. Barley.

The next paper was by Dr. E. W. Phillips, of Phoenix, on "Does Tonsillectomy Light Up Tuberculosis?"

Opening discussion on this paper was by Dr. Frank Schuster of El Paso, continued by Dr. D. M. Davis of Phoenix, with closing remarks by Dr. Phillips.

The final paper of this afternoon was by Dr. Chas. W. Mills of Tucson, on "Treatment of Pulmonary Cavities."

The discussion was opened by Dr. R. B. Homan of El Paso; it was continued by Dr. Victor Randolph (Phoenix), and closed by Dr. Mills.

President F. D. Vickers now resumed the chair and opened the general business session.

The secretary announced that four names were being proposed for membership: Dr. Chas. F. Barley of Tucson; Dr John Huffman of Tucson; Dr. Mott Rawlings of El Paso; and Dr. W. H. Livingston, of Santa Fe. These were all duly elected to membership.

The report of the Secretary-Treasurer was presented, as follows:

We have suffered a considerable loss in membership during the past year. We began the year with a membership of 225. We have not added any new members during the year, our Membership Committee having been wholly inactive.

We have lost ten members by death, 15 by resignation and ten have been dropped for being delinquent three years in dues. We have seventeen more who will be dropped on January first for delinquent dues of three years. This will make a net loss in members of 52. So many of our members have failed to pay current dues that we will have a membership of not more than 140 to 150 on January first.

This is a very serious condition, and does not call for extended discussion, but for prompt and effective treatment. When our dues were raised to $5.00 in 1930, several of our members thought this unwise and believed it would result in a dropping off in membership. Time has justified their foresight. However this is not the only reason for our gradual disintegration as an organization. It is, however, probably one cause. For this and other reasons, the following recommendations are made, without discussion of the several reasons, unless these should not be obvious to the members:

1. It is recommended that the dues for 1934 be reduced to $3 00, which was the original figure.

2. It is further recommended that a very responsible committee be constituted, possibly made up of the president, president-elect and Board of Trustees, whose function will be (a) to study the whole question of the place and program of the Association, (b) to revise our Constitution, (c) to interest the whole profession of the Southwest in the Association, (d) to present at the next annual meeting a plan of re-organization, which will include the type of programs to be given.

3. That careful thought be given by those who

have in mind nominating candidates for president-elect, to this work.

4. That, in view of the prime importance of the reorganization and the essential participation of El Paso in the plans, the next annual meeting be held in El Paso.

5. That the Board of Trustees, in their re-organization plans, be empowered to adjust or remit delinquent dues, wherever undue hardship or loss of valuable members will result should full payment be enforced.

The recommendation that the dues for 1934 be reduced to $3.00 was adopted by motion, duly seconded and carried, without dissent or discussion.

Item No. 2, in the secretary's report was put in the form of a resolution, with motion that it be adopted; this was also carried without discussion or dissent.

Motion that the matter of delinquent dues be referred to the Board of Trustees with power to act in accordance with their judgment in any individual case, was made, seconded and carried.

Dr. Homan made inquiry regarding the apparent duplication of subscriptions for Southwestern Medicine, when one of the state associations or the El Paso County Society remits for its members, and then the dues for the Medical and Surgical Association also carries subscription to the same journal.

The secretary explained that the subscriptions to the journal came from the state associations (Arizona and New Mexico) and from the El Paso County Medical Society. The appropriation from the Medical and Surgical Association was not for subscriptions but in payment for functioning as the publication medium of that organization, and somewhat in the nature of a subsidy to maintain the size and excellent quality of the journal.

The election of officers being declared in order, nominations for the office of president-elect were called for. Dr. R. B. Homan nominated Dr. J. J. Gorman of El Paso. Dr. Mott Rawlings of El Paso nominated Dr. David M. Davis of Phoenix. Balloting resulted in the election of Dr. Davis to this office.

For the office of first vice-president, Dr. Victor Randolph nominated Dr. Jas. J. Gorman of El Paso, who was elected by casting of unanimous ballot.

For the office of second vice-president, Dr. Chas. W. Mills of Tucson was nominated and elected by casting of unanimous ballot.

For the office of secretary-treasurer, the incumbent (Dr. W. Warner Watkins) was nominated and re-elected by casting of unanimous vote.

Regarding the place of the next meeting, the recommendation of the secretary was called to mind and El Paso was chosen for the 1934 meeting.

Adjournment.

The annual dinner exceeded all expectations with regard to attendance, there being close to two hundred members, guests and ladies present. A very excellent banquet served by the Hotel Hussmann was followed by entertainment, music and dancing. At the close of the dinner, the President-Elect, Dr. W. K. Gekler, of Albuquerque, gave the President's Address, dwelling on the economic situation of the physician. Dr. Gekler assumed the office of president at this time.

Dr. J. A. Pickett, president of the El Paso County Medical Society, served as Toastmaster.

The Saturday morning session opened at 10:20 a. m, with President W. A. Gekler in the chair. The two remaining papers from the Tuberculosis Symposium were presented:

Dr. Victor Randolph, of Phoenix, read his paper on "Intrapleural Pneumolysis, an Aid in Restoring Function to the Tuberculous Lung."

Dr. J. J. Beatty, of Tucson, read his paper on "How Experience in the Last Few Years Has Changed Our Attitude Toward Collapse Therapy."

The discussion on surgical treatment of tuberculosis was opened by Dr. F. P. Miller of Tucson; it was continued by Drs. E. W. Phillips (Phoenix), David M. Davis (Phoenix), W. W. Waite (El Paso), W. A. Gekler (Albuquerque), with Drs. Randolph and Beatty closing.

The Symposium on Thyroid Disease was now taken up, the first paper being by Dr. John Huffman, of Tucson, on "Physiology and Pathology of the Thyroid."

Dr. W. W. Waite, of El Paso, who was to open the discussion, stated that the subject had been so excellently covered and time was short, so he would not attempt further discussion.

Dr. S. C. Davis, of Tucson, read his paper on "Hypothyroidism." The chair announced that the discussion of this paper would be deferred until the other papers of the symposium had been presented, and they would then be discussed as a group.

Adjournment was taken to the Clinical Luncheon. After the luncheon, the report of the Committee on Necrology was called for and presented by Dr. S. D. Swope, of El Paso, chairman, as follows:

The committee on necrology begs leave to report that the following members have been removed from their earthly sphere of usefulness during the last year, by death:

Butler, Pierce M. ..... Winkelman, Arizona
Franklin, R. T. ..... Glendale, Arizona
Pruett, Frank A. ..... Phoenix, Arizona
Ramey, R. L. ..... El Paso, Texas
(Pres. First Scientific Meeting in 1914.)
Smith, H. M. ..... Las Vegas, New Mexico
Southworth, H. T. ..... Prescott, Arizona
Whitacre, H. E. ..... Tularosa, New Mexico
Wightman, L. E. ..... Globe, Arizona
Yellott, R. E. ..... Benson, Arizona
Harris, H. A. ..... Empalme, Son. Mexico

We hereby offer our sympathy to their various bereaved famlies and express the regret and sorrow for the loss of these valuable members of our association.

Committee on Resolution presented their expression of appreciation to the El Paso County Medical Society and the Ladies' Auxiliary, to the William Beaumont Hospital, to all the local committees, to the Hotel Hussmann and to the newspapers for

their generous publicity, and all who had helped to make this meeting an outstanding success. This was carried by enthusiastic vote.

The chair then called for the paper by Dr. Hal W. Rice, of Morenci, on "Indications for Surgical Treatment" (of thyroid disease). Following this paper, the meeting adjourned to reconvene at the regular meeting place at 2 p. m., to complete the scientific program.

In the final session, called to order at 2 p. m., the remaining papers of the Symposium on Thyroid were given, as follows:

Dr. J. L. Murphy, of El Paso, presented a paper on "What to Expect from Surgical Treatment."

Dr. John W. Cathcart, of El Paso, presented his paper on "X-ray and Radium Treatment of Exophthalmic Goitre."

Dr. G. Werley, of El Paso, presented a paper on "The Heart in Thyroid Disease."

Discussion of the whole group of papers in this symposium was opened by Dr. Paul Gallagher, of El Paso; it was continued by Drs. W. Warner Watkins (Phoenix), Martin B. Tinker (Ithaca, N. Y.), S. D. Swope (El Paso), F. D. Vickers (Deming), John Huffman (Tucson), W. A. Gekler (Albuquerque), G. Werley (El Paso). Closing discussions were given by Drs. Davis and Cathcart.

Adjournment sine die.

CLINICS BY THE EL PASO COUNTY MEDICAL SOCIETY

DECEMBER 8TH.

On Friday morning, at the Hotel Hussmann, the following Clinics were given by Dr. F. D. Garrett:

1. Traumatic Abdominal Cyst, with jaundice.
2. Tumor in the right abdomen,—question of origin.
3. Diaphragmatic hernia, involving cardia, with unusual symptoms.

Dr. Leslie Smith presented a number of patients with interesting skin lesions, with discussions of these, and clinical case reports.

At the Hotel Dieu, on Dec. 8th, the following, surgical clinics were held:

Prostatic resection by Dr. A. W. Multhauf.

Postoperative Cavernous sinus thrombosis, by Dr. Bloyce Britton.

Routine operations by Drs. W. L. Brown, Paul Gallagher and H. H. Varner.

At the Masonic Hospital, the following clinics were given:

Cardiospasm, presented by Dr. E. J. Cummins.

Massive multilocular cyst, operated by Dr. J. H. Gambrell.

Cesarian section, operated by Drs. J. H. Gambrell and Harry Leigh.

On Saturday morning, Dec. 9th, at the Hotel Hussmann, Dr. C. W. Awe gave a clinical discussion of undulant fever, with description of cases observed.

Dr. James Sherman gave a demonstration in hematology, with special reference to anemias.

At the City-County Hospital, the following surgical clinics were held:

Original Bone Block Operation for flail foot, by Dr. Frank Goodwin.

Umbilical Hernia, operated by Dr. J. H. Gambrell.

Rectal case with unusual features, by Dr. E. D. Strong.

Spinal injury, with neurological demonstration, by Dr. E. A. Duncan.

At the Providence Hospital, the following clinics were held:

Demonstration of fundus lesion wtih binocular ophthalmoscope; nose and throat pathology with demonstration; cataract extraction; glaucomatous iridectomy; all by Drs. S. A. and F. P. Schuster.

Resection of the presacral nerve for cord bladder, by Dr. K. D. Lynch.

Prostatectomy and resections, demonstrations, by Dr. K. D. Lynch.

SCIENTIFIC EXHIBITS

One of the most pleasing and significant features of this meeting was a small but very excellent scientific exhibit. This consisted chiefly of demonstration of interesting conditions by means of x-ray films, including the following:

El Paso Medical and Surgical Clinic: Gastro-intestinal conditions.

Frank C. Goodwin: Orthopedic conditions.

F. P. Miller: Thoracoplasty.

S. D. Swope: Series of films showing a developing lung abscess.

W. R. Jamieson: Urologic lesions.

A. W. Multhauf: Urologic lesions.

K. D. Lynch: Urologic lesions.

J. J. Gorman: Esophageal and stomach lesions.

Victor Randolph (Phoenix): Pneumothorax and Pneumolysis, unilateral and bilateral.

W. Warner Watkins (Phoenix): Non-Tuberculous Chronic Lung Lesions.

Drs. Cathcart, Mason and Dutton had a very pleasing exhibit showing the process of obtaining bacteriophages; the Eagle flocculation test for syphilis; the electrophoretic charge of bacteria.

Dr. W. R. Curtis exhibited foreign bodies from the bladder and sections of the prostate removed by transurethral route.

The following members and guests were registered:

Arizona:—N. V. Alessi (Douglas), C. V. Barley (Tucson), J. J. Beatty (Tucson), O. H. Brown (Phoenix), F. W. Butler (Safford), David M. Davis (Phoenix), S. C. Davis (Tucson), John W. Flinn (Prescott), Robt. Flinn (Prescott), W. A. Holt (Globe), J. W. Huffman (Tucson), F. A. Kennedy (Sacaton), R. D. Kennedy (Globe), Chas. S. Kibler (Tucson), J. B. Littlefield (Tucson), Jas. M. Meason (Chandler), Chas. W. Mills (Tucson), J. W. Morris (Safford), R. F. Palmer (Phoenix), E. W. Phillips (Phoenix), H. M. Purcell (Phoenix), Victor Randolph (Phoenix), Hal W. Rice (Morenci), W. W. Watkins (Phoenix), R. A. Wilson (Tucson).

New Mexico:—C. J. Amble (Mountainair), M. A. Cunningham (Deming), D. C. Daniel (Clayton), F. B. Evans (Alamogordo), N. D. Frazin (Silver

City), W. A. Gekler (Albuquerque), C. W. Gerber (Las Cruces), R. G. Hollis (Ft. Stanton), Wm. Howe (Las Vegas), W. H. Livingston (Santa Fe), C. A. Miller (Las Cruces), H. A. Miller (Clovis), J. G. Moir (Deming), J. A. Steel (Hatch), R. F. Stovall (Grant), G. E. Tucker (Anthony), F. D. Vickers (Deming), J. J. Walker (Roswell), C. L. Womack (Artesia), M. K. Wylder (Albuquerque).

Western Texas (El Paso):—E. K. Armistead, C. D. Awe, F. O. Barrett, J. T. Bennett, Bloyce Britton, J. M. Britton, W. W. Britton, W. L. Brown, J. W. Cathcart, G. Causey, E. J. Cummins, W. R. Curtis, E. A. Duncan, L. O. Dutton, W. Ebell, O. Egbert, Major Franklin, Paul Gallagher, J. H. Gambrell, F. D. Garrett, S. J. Gatty, W. W. Gay, F. C. Goodwin, J. J. Gorman, Clay Gwinn, Major W. W. Hall, Ralph Homan, R. B. Homan, Jr., R. B. Homan, Sr., W. R. Jamieson, B. F. Jenness, N. H. Keller, Major Kelly, J. W. Laws, Harry Leigh, T. C. Liddell, A. D. Long, K. D. Lynch, C. H. Mason, T. J. McCamant, P. E. McChesney, F. P. Miller, J. E. Morrison, A. W. Multhauf, J. L. Murphy, J. A. Pickett, E. C. Prentiss, J. A. Rawlings, J. M. Rawlings, Major Raycroft, C. F. Rennick, E. W. Rheinheimer, Paul Rigney, Jacob Rogde, H. T. Safford, H. T. Safford, Jr., F. P. Schuster S. A. Schuster, J. E. Sherman, Leslie Smith, W. H. Stevenson, E. D. Strong, S. D. Swope, R. F. Thompson, Geo. Turner, S. T. Turner, H. H. Varner, S. G. Von Almen, W. W. Waite, G. Werley, Major Williams, J. H. Camp (Pecos), O. J. Bryan (Pecos).

Guests:—Martin B. Tinker, Ithaca, N. Y.; J. L. Jinkins, Galveston, Tex.; H. L. Hilgartner, Jr., Austin, Tex.; Crum Epler, Pueblo, Colo.; Walter Clarke, New York.

Mexico:—F. T. Hogeland, Cananea, Sonora.

BASIC SCIENCE IN ARIZONA

The history of the Basic Science Referendum campaign, which was won by a majority of some 800 votes, last October, is best given in the report of the Office Secretary to the Arizona Public Health League, Mrs. Kitty Ives Coleman. In substance this report is as follows:

II. Campaign Organization

A. The Arizona Public Health League: Organization consisted of A. C. Taylor, president; Edward Dorsey, secretary; Mrs. Maie Bartlett Heard, treasurer, and D. F. Harbridge, assistant secretary. This organization backed the campaign with their names appearing on all printed and advertising material, while form letters were signed by A. C. Taylor as president. The finances of the campaign were entirely under the control and supervision of this organization. Mr. Taylor and Mr. Dorsey signed all claims, with D. F. Harbridge issuing all checks. D. F. Harbridge also audited the accounts of the office secretary.

The Campaign Committee consisted of George C. Truman, M. D., chairman; J. D. Hamer, M. D. and Howell Randolph, M. D., members. The printing, advertising, and general campaign publicity work was directed by this committee. J. D. Hamer, M. D., served as secretary to this committee and attended to all office correspondence in addition to supervising detailed work of the campaign.

The Office Secretary prepared and submitted to Campaign Committee all materials for printing, advertising, radio addresses, etc. All mimeographing was done in the office in addition to general correspondence, etc.

Additional office help consisted of assistant typist for thirteen hours of work.

Parcel Post mailing was attended to by the A. C. Taylor Co.

The simplicity of the campaign organization greatly expedited the work of the office. The secretary of the campaign committee checked all work promptly, making it possible to clear all work daily. All committee meetings were held promptly.

III. Scope of Campaign.

The Organization and Individuals Contacted included:

1. County Medical Units. These societies were notified at the outset of the campaign that the Basic Science law was up for referendum vote, and a plan of action for county medical units suggested.

2. Medical Auxiliaries and Nurses Associations. These groups were also contacted and given plans for assisting in the campaign. Their chief work was to get the vote to the polls—this they did thoroughly.

3. Legislators. All legislators who supported the bill were written personal letters and asked for suggestions in conducting campaign. Valuable mailing lists were secured from this source—not political lists but names of individuals who would actually vote. Mr. Frank W. Bear, the legislative sponsor of the law, kept in daily touch with the office and gave freely of his time and advice.

4. Dr. Clarence Gunter—whose efforts in behalf of the Basic Science law extend over some ten years past—sent out 500 personal letters in addition to making visits to several counties of the state.

5. Parent Teacher and Women's Clubs. These organizations, through interested chairmen and heads, rather than as organized groups, gave invaluable help during the campaign. Publicity material was well distributed through these agencies.

6. Key Voters. Through mailing lists, as sent in by the five groups above, key voters in each county were contacted and sent material for distribution.

7. Druggists and Dentists. Mailing lists were secured from these groups, also, and other cooperation freely given.

B. Publicity Material Issued.

1. Publicity Pamphlets. These were six page pamphlets which outlined the Basic Science law, and presented its merits and intended service to the public in terms understandable to the lay mind.

2. Vote Yes 304 cards were distributed statewide for display in doctors' offices, drug stores, and such suitable places.

3. Other publicity matter consisted of cards printed in Spanish informing this class of voters as to the merits of the law; placards for display at polls were sent out state wide; small poll cards to be handed voters were issued; enclosure cards, mailed by doctors with their monthly statements were also printed—in some instances doctors preferred using the general publicity pamphlets for this purpose.

4. Form letters were especially prepared for the various types of key voters as obtained from mailing lists obtained from groups indicated in III-A above.

C. Advertising.

1. Radio Program. Station KTAR, Phoenix. This program began a week before election and consisted of: a. Forty word announcements urging "Vote Yes, 304," b. Two radio addresses of fifteen

minutes each given, respectively, on the two days preceding election. The first address was given by Mr. Frank W. Beer, legislative sponsor of the law. The second fifteen minutes broadcast consisted of to-the-point talks given by the Secretary of the Phoenix Chamber of Commerce; the President of the Arizona Bar Association; the State Chairman of Public Health for the Arizona Congress of Parents and Teachers. Mr. A. C. Taylor, as president of the Arizona Public Health League, presided at each broadcast as master of ceremonies.

2. Newspaper Advertising. Advertising space was carried in the representative newspapers of the state. The copy for all these ads was prepared and sent out from the campaign office in order that publicity material might be uniform throughout the state. In some instances local doctors signed the ads, while in others the officers of the Arizona Public Health League signed.

3. Editorial Support. Editorial support was excellent. The Arizona Republic, the state's leading daily, ran three editorials previous to election supporting the referendum, and another following election endorsing the action of the voters. Papers, state wide, were generous with their support.

IV. Obstacles in Way of Campaign.

A. Natural Elective Objection to Referendum and Initiative. Arizona has a natural objection to voting "yes" on any and all such legislation. The opposition counted on this fact in presenting the Basic Science Law as a referendum, hoping in this manner to kill the law.

B. Basic Science Principles Difficult to Explain to the Lay Mind. To the lay mind, the very word "basic science" is complicated and vague. More radio programs, reaching the voter by voice, would have aided in getting the public to understand the Basic Science law. A field worker, touring the state and contacting the voters, could also aid in clarifying such questions to the laity. This is costly.

C. Profession Not Alert to Need for Organized Effort.

1. Some counties failed to organize definite campaigns supporting the referendum. These counties, six in number, were lost. The eight counties having organized campaigns secured majority votes for the referendum.

2. The losing counties either counted on the larger counties to carry the referendum over, or were not especially interested in the outcome.

D. Work of Opposition.

Opposition knows no code of ethics. Publicity material, grossly misrepresenting the truth of the law was issued. The false statement that this law would cost the taxpayer "thousands of dollars" accounts for the vote the opposition was able to secure. These are exactly the right times to throw a "tax scare" into the public. The charge that the governor of the state signed the Basic Science law and vetoed the Naturopath act brought support for the "under dog." The flagrantly false charge that Mr. Beer as legislative sponsor, had received a huge sum for getting the law through the legislature and that he would receive a similar amount if the referendum were sustained, gained many votes for the opposition. This is ironical in that Mr. Beer is actually money out of pocket for his personal interest in behalf of the measure.

If the doctors had half the organized "trust" the opposition claim, such legislation would always carry by a huge majority.

V. County Vote on Referendum.

	304	305
Apache	151	248
Cochise	1214	1472
Coconino	341	265*
Gila	1067	864*
Graham	219	392
Greenlee	303	253*
Maricopa	5282	4323*
Mohave	264	456
Pima	2391	1708*
Pinal	683	575*
Santa Cruz	411	202*
Yavapai	851	1108
Yuma	463	433*
Totals	13,988	13,104

Majority for 304—884.

In the instance of each county carried (marked by *) the doctors conducted active campaigns and the majority votes secured in those counties may well be taken as a vote of confidence in the M. D.—*my doctor*.

Santa Cruz, a small county, had probably the best organized county unit resulting in a better than 2 to 1 vote of confdience in medical legislation. This county voted down the other referendum up for vote. Cochise, a mining county, worked hard but was unable to overcome the "tax cry" of the opposition.

A Follow-Through Campaign is necessary. Now that the Basic Science law has been sustained, it behooves friends of the measure to educate the public to the fact that a law as fair, unbiased, and economic in operation as claimed by its proponents, has been enacted. This is especially necessary in those counties failing to carry the referendum. The false charges made by the opposition need to be cleared if future public health legislation is to be possible. The opposition is even now attacking the constitutionality of the law. Friends of the Basic Science law must be constantly on the alert if it is to be given a "clean bill of health." Through some medium, monthly letters to all members of the state medical association, advising them as to the continuous work of the opposition and suggesting ways and means for keeping professional interest alert, should be sent out. This could be done at small cost. Santa Cruz county is holding a series of community programs, relative to public health, during the current year. Other counties might do well to address Dr. Chas. Smith, Nogales, Arizona, and learn the particulars of the Santa Cruz health programs.

For the information of those who may have forgotten the provisions of this law, it is printed below:

The most interesting features of this law, so far as the medical profession is concerned, are,

(1) The requirements for registration of all practitioners now in the state. This gives the working basis for this "new deal" in medical practice in Arizona.

(2) The provision that the secretary of the State Board of Health shall be the proper authority to take cognizance of any violations of this Act, and making it mandatory on county attorneys and the attorney-general to prosecute violations of this law. This latter provision represents the teeth in this law and fixes a responsibility which has heretofore been very vague and indefinite.

Section 1. Basic Sciences Defined; Practicing Healing and Practice of Healing Defined. Wherever the term "Basic Sciences" is used in this act and not otherwise specifically defined, the same

(Continued on page 36)

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MEDICAL & SURGICAL ASSOCIATION OF THE SOUTHWEST
(Publication Committee)

DR. F. D. VICKERS ..... Deming
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A HAPPY NEW YEAR

As we write "Volume XVIII," and turn our thoughts to the New Year, we feel that there are good reasons not only to wish for, but to expect, a "Happy New Year." The Southwest cannot be said to be prosperous, but neither are we destitute. We entered the year 1933 with fear and trembling. We emerged from it with courage and confidence. Surely that is not all a state of mind. During the last six months of 1933 there was a definite trend upward in our economic condition; this more assuring in that it did not come with a sudden spurt but was gradual, and, like the optical illusion sometimes experienced in driving an auto up a long grade, we had to look backward in order to be certain that we were climbing. We are still on that economic grade, and are assured by our national leaders that at the top there will be a plateau of security and not a sudden drop into another depression. We are not even as fortunate as Will Rogers and cannot say that we "know what we read in the papers;" certainly there is much about our economic situation written about in the papers which we do not understand. We do believe, however, that never since the World War have our national leaders been so unselfishly determined to solve the country's problems and solve them on the basis of the greatest good for the greatest number. In such a situation, we can only have confidence that these solutions will be found and lend every effort to that much desired end.

THE SOUTHWESTERN ASSOCIATION

In this issue appears a full account of the annual meeting of the Medical & Surgical Association of the Southwest, which met in El Paso, last month. Among the notable accomplishments of that meeting was the inauguration of plans looking to the enlargement and improvement of this important medical organization. This duty was entrusted to the president, president-elect and three trustees, who will function as a Committee on Re-organization. The committee will, therefore, consist of Drs. W. A. Gekler, David M. Dairs, E. Payne Palmer, F. D. Vickers and W. R. Jamieson.

Without attempting to forecast what will be done or to prejudice their activities, but simply to help prepare the way for them, a brief review of the origin and activities of the Association during the past twenty years will be helpful. Prior to 1913, there existed a Southwestern Railway Surgeons' Association, meeting usually in El Paso and composed chiefly, if not entirely, of physicians serving as local and district surgeons of the several railways traversing this territory. In order to enlarge its scope, this was re-organized in 1913 into the Medical & Surgical Association of the Southwest, which opened its membership to all members in good standing of the county and state medical societies of Arizona, New Mexico, western Texas and northern Mexico. We would digress at this point to make amends for an unintentional oversight. In the recent

program of this Association's meeting in El Paso, there was an historical summary which omitted to state that Dr. C. P. Brown of El Paso was its first secretary. It was due chiefly to the untiring efforts of Dr. Brown that the Association was able to weather the first two or three precarious years of its existence.

The organizers of the Association had in mind, as its fundamental purposes, (1) the development of medical and surgical practice in the Southwest to the highest possible degree of efficiency; (2) the demonstration of this work, through scientific meetings and clinics, to the end that medical men of the Southwest might become convinced of the self-sufficiency and self-efficiency of the profession. One of the original purposes was to make El Paso a medical center which need not be ashamed to hold up its head in any company. Medical men from Phoenix, Tucson and Albuquerque, in their annual pilgrimages to El Paso, became fired with the ambition to make their cities as good in medical facilities and as efficient in medical service. Thus a healthy competition sprung up which has been highly stimulating throughout the Southwest.

At times, the Southwestern meeting has departed from the original idea of presenting an annual pageant of its own accomplishments in contradistinction to what has been done elsewhere, and have invited eminent specialists to visit us and tell us about the more elaborate accomplishments of other medical centers. One of the main problems of this Committee will be to offer a definite policy along which the Association may develop in the future. Shall the Association return to its original purpose and develop its medical autonomy? In our annual meetings, will we benefit more by bringing in eminent authorities in medicine to instruct us in various lines of achievement? Can we build our meetings on our own accomplishments and set over against this a judicious amount of work done elsewhere, for the sake of stimulating comparison? These are some of the important things to be considered by the Committee.

An intensive membership drive will also be conducted by this committee with the goal set at not fewer than 250 new members. To lend encouragement to this, the dues in the Association for the year 1934 were set at three dollars.

SAMUEL M. PARRISH

The death of Dr. Samuel M. Parrish, of Raton, N. M., closed the earthly career of one of the highly esteemed practitioners of New Mexico. He died on December 14, 1933, from pulmonary tuberculosis. Dr. Parrish was born in Missouri, Sept. 16, 1882. He took his medical degree at St. Louis University, in 1907, practicing at Smithton, Mo., and Fayette, Mo., until the World War in which he served. He was stationed at the Medical Officers Training Camp at Fort Riley, Kans. Subsequent to the war he located at Raton, N. M., where he practiced until his death. He was a member of the county and state medical organizations and will be greatly mourned by his confreres.

SANTA CRUZ MEDICAL SOCIETY

Occasionally a county medical society comes to life and begins to function with such an astonishing efficiency that its achievements deserve to be broadcast. Such a society is to be found in Santa Cruz County, Arizona. This society has ten members, but if any other society, large or small, in the Southwest can match them for originality of program, for coordinated activity, or for practical achievements, we would like to hear of it.

When the referendum was invoked against the Basic Science Law, as noted elsewhere in the report of the Arizona Health League, this county organized and took their story to the public with the result that the vote in that county was more than two to one in favor of the Law. They have not stopped here. They are continuing an active campaign of education of the public by public health meetings. The one held in December was addressed by Dr. N. C. Bledsoe, President of the Arizona State Medical Association, and Dr. L. Cody Marsh, a psychiatrist of note who has recently located in Tucson. This is bound to result in a better understanding of hygiene on the part of the public and will have the desirable incidental effect of thoroughly establishing in the minds of the citizens of that community the fact that the members of the county medical society are the authorities in matters of health and sick-

ness. This is a far better defense against quackery than legislation will ever become.

The officers of the Santa Cruz County Society for the year 1934 are as follows: Chas. S. Smith, President; J. H. Woodard, Vice-President; A. L. Gustetter, Secretary; G. L. Harker, Treasurer; the other members are T. B. Fitts, F. T. Hogeland, T. G. Reynolds, J. S. Gonzalez, E. E. Gloor, E. C. Houle.

They are now working out a plan for associate membership for the physicians of Nogales, Sonora, Mexico.

EL PASO COUNTY MEDICAL SOCIETY

The annual meeting of the El Paso County Medical Society was held at the Hotel Hussmann, on September 11th, at which meeting the following officers were elected:

President, Dr. E. W. Rheinheimer.

Vice-President, Dr. Ralph Homan.

Secretary-Treasurer, Dr. Leslie M. Smith.

Delegates to the Texas State Medical Association, Drs. T. J. McCamant and R. B. Homan; Alternates, Drs. F. P. Miller and George Turner.

Librarian, Dr. T. J. McCamant.

Associate Editor for Southwestern Medicine, Dr. W. R. Jamieson.

Delegate to the American Association for the Advancement of Science, Dr. E. C. Prentiss.

Board of Censors, Dr. Frank Barrett.

November 27, 1933

(Reported by Dr. Leslie M. Smith, Secretary.)

Report of 500 Cases of Hemorrhoids: E. D. Strong, M. D.

Smallpox: I. J. Bush, M. D.

Case for Dagnosis: W. W. Britton, M. D.

Report of Committee for Meeting of Medical and Surgical Association of the Southwest.

The El Paso County Medical Society met at Hotel Hussmann at 8 p. m., November 27, 1933, Dr. J. A. Pickett presiding. The minutes of the previous meeting were read and approved.

Dr. E. D. Strong read a report of 500 hemorrhoid cases treated with injections of 5 per cent phenol in oil. He reported good results.

Dr. I. J. Bush read a paper on smallpox, relating its history, his experiences, and an excellent description of the disease. This paper will be published in full elsewhere. The paper was discussed by Drs. T. J. McCamant, E. C. Prentiss, Leslie Smith, E. D. Strong, J. W. Tappan, Ralph Homan, Chas. Rennick, Major Crawford, Colonel Pipes, and Major Kelly.

Dr. W. W. Britton reported a case for diagnosis. There was a consolidation in the middle lobes with the apices almost clear. The prevailing opinions were that it was either tuberculosis or Hodgkin's disease. Discussion by Major Emerson, Drs. Ralph Homan, Mott Rawlings, F. P. Miller, Chester Awe, George Turner, Major Franklin, Drs. J. W. Cathcart, J. W. Laws, and W. W. Waite.

The application of Dr. S. J. Gaddy for membership was read and referred to the board of censors.

The secretary read a letter from the Securities Service Corporation inviting the Medical and Surgical Association of the Southwest to a luncheon during the convention, at which time a Mr. Pick would talk on investments. Dr. W. W. Waite stated that the program was already full and that we could not take advantage of this offer. The secretary was instructed to so inform the Securities Service Corporation.

Dr. McCamant stated that he had moved the medical library to the basement of the Health Department Building and would need about $50.00 to get the library room in shape. The society voted to allow Dr. McCamant $50.00 for this purpose.

Brief reports were heard from the various committees appointed for the coming meeting of the Medical and Surgical Association of the Southwest.

There being no further business the meeting adjourned at 10:10 p. m.

AUTO ACCIDENTS AND ALCOHOL

The United States Bureau of Public Roads has not found that excessive speed is the greatest cause of accidents. In a research carried out by checking the speed of 41,000 automobiles, the average speed was found to be 35.5 miles per hour. Only one per cent travelled over 55 miles an hour; 12 per cent between 45 and 55; 43 per cent between 35 and 45; and 36 per cent between 25 and 35 miles per hour.

Drinking of alcoholic beverages interferes with driving ability in four different ways, according to Dr. Walter R. Miles, of Yale University. Although alcohol is generally thought of as a stimulant and gives a feeling of stimulation to the person drinking it, its real effect is depressing on the functions of the body. The driver who has been drinking gives a poorer grade of attention to what is going on

around him, including other traffic and traffic signals. His eyes, hands and feet are slower to respond. His muscular responses are less dependable. But he has an increased self-assurance which prompts him to assume the right of way and be willing to take chances. It is the belief of informed traffic officials that one-third of highway traffic accidents are chargeable to the use of alcohol by the driver.

According to an investigation made by the Maria Hospital in Stockholm, and published in Acta Chirurgica Scandinavica, 44 per cent of men injured in automobile accidents had alcohol in the blood, which means that they had been drinking within a few hours before the accident occurred. The investigation indicated that accidents are likely to occur in the very early stages of intoxication, that is, after the drinking of what usually is called a "moderate amount."

These investigations in two widely separated countries indicate that alcoholism is the same wherever it occurs; that alcohol is a narcotic poison from the time the first drop enters the stomach and begins then to depress the higher intellectual centers, and continues this effect until it is destroyed or eliminated.

SLEEPING SICKNESS

The recent epidemic of so-called "sleeping sickness" in St. Louis aroused great interest, both in medical circles and among interested citizens generally. This term has come into use because of the drowsiness which accompanies some forms of the disease. It must not be confused with African sleeping sickness, a specific disease due to a flagellated parasite, trypanosoma gambiense,—transmitted by the bite of the tsetse fly.

Lethargic encephalitis, to which the term "sleeping sickness" has been applied, is an acute infectious disease of unknown origin, the toxins of which cause diffuse, degenerative, disseminated inflammatory changes in the central nervous system. Four outstanding clinical types have been described:

The lethargic or ophthalmoplegic type which sets in after a prodromal period of fever and meningeal irritation. The neck is stiff and there is a mild pharyngitis. Drowsiness appears. The external and internal eye muscles become paralyzed as manifest by the appearance of diplopia and ptosis.

The Parkinsonian type which begins like an attack of influenza and suddenly paralytic symptoms appear which resemble paralysis agitans (shaking palsy or Parkinson's disease). The face is expressionless. The eyes exhibit a reptilian stare. The trunk and limbs are rigid. The voice is monotonous. Micrographia. Tendency to propulsion and festination. Tremor is, however, usually absent. In this type scopolamine, stramonium and atropin are usually effective.

The hyperkinetic type in which the primary stage of fever and excitement is followed by severe symptoms of motor excitation; either choreiform or myoclonic muscular contractions especially of the abdomen. This is bilateral.

The psychotic type which is characterized by memory defects. Disorientation as to time, place and person. Active delirium may alternate with stupor. Persistent emotional disturbance.

The epidemic which centered in St. Louis did not follow any of these types, and has been designated "Encephalitis B." The disease appeared suddenly with high fever (which lasted about a week and then declined), headache, occasionally double vision, occasional lethargy but also tremors and convulsions. Lumbar puncture showed a clear spinal fluid under increased pressure, high pleocytosis, increase in globulin and sugar. The blood showed leukocytosis (15,000 to 20,000) with excess of polynuclears.

ARIZONA AND NEW MEXICO IN THE LEAD

Restrain the cheering. We lead in the death rate from tuberculosis. Below in tabulated form will be found the death rates per 100,000 of population for the United States (registration area), Arizona and New Mexico, for the years 1929, 1930, 1931 and 1932.

Naturally and justly we claim that most of these are people from the east who come out here and inconsiderately die before we can send them home. But they represent a great problem, which is diminishing slightly as people learn that climate is valueless unless it is

backed up by a healthy appetite, a contented soul and an adequate pocket-book. It is the lack of these which runs up the figures in Arizona and New Mexico.

Death Rates per 100,000

	1929	1930	1931	1932
United States	76.0	71.5	62.8	63.0
Arizona	365.1	329.0	291.2	264.3
New Mexico	203.5	187.5	150.5	142.7

SOUTHWESTERN SECTIONAL MEETING. AMERICAN COLLEGE OF SURGEONS.

The Southwestern Sectional meeting of the American College of Surgeons will include New Mexico, Arizona, western Texas (El Paso County), and northern old Mexico. It will hold an unusually attractive meeting in Phoenix, on March 16 and 17, with the honor and pleasure of having both the President of the College, Dr. William D. Haggard, and the President-Elect, Dr. William B. Greenough, at this conference.

The headquarters will be at the Westward Ho, where scientific papers and conferences will be held. The papers and addresses will be given by eminent visiting surgeons and Fellows of the College of the Southwest. Among the visiting surgeons who will participate in this sectional conference are the following:

Dr. Franklin H. Martin, Director-General of the College..

Dr. William D. Haggard, Professor of Clinical Surgery, Vanderbilt University, President of the College.

Dr. William B. Greenough, Consulting Surgeon Massachusetts General Hospital, President-Elect of the College.

Dr. Thomas M. Joyce, University of Oregon Medical School.

Dr. Charles A. Dukes, Oakland, Calif.

Dr. Allan B. Kanavel, Professor of Surgery, Northwestern University Medical School.

Dr. Malcolm T. MacEachern, Associate Director, American College of Surgeons.

Complete program of the Conference will be given in this journal next month (February).

THE NEW FOOD AND DRUGS BILL.

A bill which will come before the new Congress, very soon after it convenes, is of vital interest to the medical profession. This is the revised Food and Drugs Bill. The old Pure Food and Drugs Act, which has been in force since 1906, has been very valuable, but is so full of defects that revision is essential. Its most fatal defect was that it did not cover advertising, except that appearing on the label. The result of this was that the labels on patented medicines have been within the law, but the same nostrums have blatantly advertised their false and misleading statements in newspapers, magazines and over the radio. Extracts from a recent article by R. G. Tugwell, Assistant Secretary of Agriculture, appearing in Editor and Publisher, show the defects in the old law and the absolute necessity for revising it:

Reputable publishers and broadcasters do not want to disseminate fraudulent or misleading advertising. They realize that in the long run their interests are identical to the interests of consumers.

In the field of foods, drugs, and cosmetics, unfortunately, broadcasters and publishers do not have facilities for determining accurately whether or not a product is truthfully represented in advertising copy. True, some publishing firms have formed their own reviewing committees, and others submit medical advertising to competent advisers for comment. But on the whole the public can hardly expect every newspaper and radio station in the United States to maintain costly laboratories for testing advertised products; new patent medicines, for example, come and go with astonishing rapidity and there are now literally thousands of them on the market. No matter how well-intentioned publishers may be, therefore, there is placed before the public a great deal of advertising that deceives consumers, much to the detriment of public health.

The depression has had a serious effect on advertising standards. As revenues to advertising media declined, and as advertising agencies received smaller and smaller budgets from manufacturers, some of the agencies took on more questionable accounts, poured more and more ballyhoo into their copy, and the advertising media began decreasing their standards, a little at a time. Large publishing houses that had done a great deal to improve the character of national advertising, that had turned down accounts running into hundreds of thousands of dollars annually, began to stretch a point or two to admit advertising filled with questionable innuendo. One of the crusaders for clean advertising found its revenues swelled by running a full-page advertisement which represented an ordinary mouth wash as a preventive for tuberculosis. So the depression reduced standards, and consumers suffered accordingly.

While national magazines, good metropolitan dailies and radio networks carry many fraudulent and misleading advertisements, by far the most flagrant abuses are found in movie magazines, mail-order catalogues, educational and religious journals, cheap fiction or "pulp" magazines, small dail-

ies, country weeklies, and on small independent stations, as well as in direct mail advertising. This again is probably a matter of competition. Just why a "pulp" magazine should declare that a depilatory is *safe* to use when it is known that the depilatory contains a positively dangerous ingredient that sends users to hospitals, causes all hair to drop from the body, and sometimes leads to death, I do not know unless it is that the better advertising accounts have exhausted their funds before they reach this class of publication and it must, perforce, take what it can get. Apparently educational and religious journals find themselves in the same predicament. Many small-town newspapers salve their consciences for advertising perfectly worthless and often dangerous products by charging a higher advertising rate for this type of copy.

I wish it were possible for advertisers, agencies, publishers, and broadcasters themselves to clean up the advertising business in every nook and hamlet of the United States. Unfortunately, that is far too much to expect. The presses of this country turn out 40 million copies of newspapers every day; they print 120 million copies of magazines every month; 600 radio stations broadcast daily with smooth and persuasive voices, turning on sales appeal full tilt. How many millions of direct-mail circulars flood the mails every month no one knows. Those are some of the outlets. Advertising originates from some 5,000 manufacturers of medicinal preparations, 2,000 cosmetic manufacturers, and thousands of food manufacturers. That is only part of the picture. Retailers advertise, too. Tnere are more than 60,000 drug stores alone in the United States, the proprietor of any one of which is likely to sit down a few moments before his local paper goes to press and dash off an intriguing advertisement for a new diabetes cure (there is no such thing), he has just placed on his shelves and which he will be glad to pass on to his customers at $12 a bottle.

Patently, no privately organized group can regulate this whole field and give anything approaching a high degree of consumer protection. Physical limitations alone are too great, to say nothing of the impossibility of private enterprise managing a system of control that is completely unbiased, scientific, uniform, and permanent. I am certain, however, that this very situation presents an opportunity for effective cooperation between industry and Government.

Any intelligent conception of modern governmental functions must embrace the idea of effective consumer protection. The scope of such protective action must be progressively enlarged as population and the complexity of our social and economic life increase. Thus the protection afforded by the Federal Food and Drugs Act when passed in 1906 is radically insufficient today. Since the Act was originally passed there have been many changes in the food and drug industries, while the cosmetic industry has grown like a mushroom. New narcotic and habit-forming drugs have appeared on the market. Totally new food constituents and important nutrition elements like the vitamins have been discovered.

The progress of science alone can invalidate a law. In the case of the Food and Drugs Act that is certainly true. Nevertheless, 27 years' enforcement of the law has done a great deal of good. Among other things it has corrected the labeling of thousands of food and drug commodities. More than 22,000 legal actions, taken under the law since 1906, have had a salutary effect upon manufacturers of foods and drugs and have pretty well convinced them that truthful labeling is the best policy.

Unfortunately, however, the 1906 law does not cover advertising, except that appearing on the label. As a result, false and misleading statements have merely moved from one place to another.

Take a copy of a newspaper and carefully compare the advertising claims for a drug product with the label of this same product. If you read "Vapo-Cresolene" advertising you will find that it is recommended for whooping cough, spasmodic croup, bronchial asthma, nasal colds, bronchitis, and other ailments. These same statements used to appear on the label. The government seized the product on the ground that it was labeled with false and misleading declarations. The company quickly revised its labels so as to make them unobjectionable, but the product is still advertised as heretofore and whooping cough sufferers continue to buy the product.

Compare the label and the newspaper advertising of Lydia E. Pinkham's compound. The label says, in part, modestly and innocuously enough, "Recommended as a vegetable compound in conditions *for which this preparation is adapted.*" The consumer is curious to know about those things for which the product is adapted. So that the newspaper advertising—which, remember, is not subject to the present Food and Drugs Act—boldly claims that the product has remedial properties for inflammation, leucorrhea, female weakness, nerve troubles, "pains in the side," run-down condition, and other disorders of the body—all of which, any physician knows, is so much tommy-rot.

Believing some of the advertising they hear by radio and read in publications, people today are using dangerous fat-reducers and are thereby impairing their health; they are using depilatories with dangerous drugs and are being sent to hospitals; they are using "safe" hair dyes only to get lead poisoning for their trouble and money; they are taking radium water and are breathing their last; they are trying to cure colitis with a common laxative sold at a fancy price; they are trying to treat stomach ulcers with worthless tablets, only to impair their health with excessive cathartics; they are stuffing themselves with worthless nostrums and if, in despite of the nostrum, they get well, they sit down and write testimonials for the manufacturers.

I saw recently an impressive exhibit which I wish I could place before every manufacturer of medicinal preparations and every consumer in the United States. In the center of the exhibit is a pint bottle of dark liquid which sells for $12. Surrounding the bottle is a medley of direct-mail leaflets which claim that the nostrum will cure diabetes. To the right is a bundle of letters—testimonials—written by persons who used the medicine and declared that they were cured. These testimonials are numbered. To the left is a batch of death certificates, grim evidence that no one can dispute. These are also numbered. If you will lean forward and compare each numbered testimonial with the correspondingly numbered death certificate, you will find that the name, address, and all descriptions are the same. Every one of the persons who wrote testimonials died—and the doctors in every case certified that the cause of death was diabetes.

This $12 product is not manufactured by a pharmaceutical company; many patent medicines are not. It is manufactured, advertised, and sold by a traveling shirt salesman who, failing to find enough people who wanted to send him to college, became more enterprising and built up a highly profitable business by preying on the misery and gullibility of diabetics.

This particular product is made from a weed called "horse-tail." Others are more scientific—they actually contain Epsom salts, sugar and water. In our so-called enlightened age, the number of these miraculous cures is appalling. Pick up any issue of a secondary magazine and you are almost sure to find one or more advertised. Diabetics

want to believe. This is particularly tragic now that science has given us insulin which will retard the effects of the disease and permit diabetics to live a normal span of life.

Consumers want to know, naturally enough, why the government permits worthless products like these to be sold. I wonder about that too. Consumers want to know why magazines will carry advertising which fraudulently claims a product will cure diabetes. Hundreds of reputable publishers, and I, are wondering about that also.

I know that most publishers and broadcasters are willing to sacrifice a few dollars—and often do—in the interest of public health. But what a hundred or even ten hundred publishers do will not solve the problem. At present a chiseling minority too often defeats the constructive efforts of the majority. Under these circumstances we need the centralizing power of the government which will enable the majority to do collectively what they cannot do individually.

The revised Food and Drugs bill before Congress will, when passed, give that protection. It places responsibility where responsibility belongs—on the shoulders of manufacturers or persons placing the advertising. It requires publishers and broadcasters to supply the names and addresses of those placing advertisements, but it does not hold them liable, further than this. Neither does the revised bill require, as so many have supposed, that the Department of Agriculture is to become a high-powered censor, requiring that all advertising copy be submitted in advance.

What, in the terms of the new bill, is false or misleading advertising? Here is the text of the bill itself:

Sec. 9 (a) An advertisement of a food, drug, or cosmetic shall be deemed to be false if in any particular it is untrue, or by ambiguity or inference creates a misleading impession regarding such food, drug, or cosmetic.

(b) An advertisement of a drug shall also be deemed to be false if it includes (1) the name of any disease for which the drug is not a specific cure, but is a palliative, and fails to state with equal prominence and in immediate connection with such name that the drug is not a cure for such disease; or (2) any representation, directly or by ambiguity or inference, concerning the effect of such drug which is contrary to the general agreement of medical opinion.

(c) To discourage the public advertisement for sale in interstate commerce of drugs for diseases wherein self-medication may be especially dangerous, or patently contrary to the interests of public health, any advertisement of a drug representing it directly or by ambiguity or inference to have any effect in the treatment of any of the following diseases shall be deemed to be false: Albuminuria, appendicitis, arteriosclerosis, blood poison, bone diseases, cancer, carbuncles, cholecystitis, diabetes, diphtheria, dropsy, erysipelas, gallstones, heart diseases, high blood pressure, mastoiditis, measles, meningitis, mumps, nephritis, otitis media, paralysis, pneumonia, poliomyelitis, prostate gland disorders, pyeltis, scarlet fever, sexual impotence, sinus infections, smallpox, tuberculosis, tumors, typhoid, uremia, venereal diseases, whooping cough, except that no advertisement shall be deemed to be false under this paragraph if it is disseminated to members of the medical and pharmacological professions only or appears in scientific periodicals; Provided, That whenever the Secretary, after notice and hearing, determines that an advance in medical science has made any type of self-medication safe as to any of the diseases enumerated above, he may by regulation authorize the advertisement of drugs having curative or therapeutic effect for such disease, subject to such conditions and restrictions as he may deem necessary in the interests of public health; Provided further, That whenever the Secretary, after notice and hearing, determines that self-medication for diseases other than those herein named may be especially dangerous, or patently contrary to the interests of public health, he is hereby authorized to promulgate regulations designating such other diseases as diseases within the meaning of this paragraph: Provided further, That this paragraph shall not be construed as indicating that self-medication for diseases other than those named herein or designated by regulations of the Secretary under the authority hereof is safe or efficacious.

A subsequent section, 17 (a) (3), prohibits the dissemination of any false advertisement by radio broadcast, United States Mails, or in interstate commerce for the purpose of inducing, directly or indirectly, the purchase of food, drugs, or cosmetics. Section 17 (a) (4) supplements the preceding one by prohibiting the dissemination of a false advertisement by *any means* for the purpose of *inducing*, directly or indirectly, the sale of food, drugs, or cosmetics in interstate commerce.

The punitive provisions initially make all persons violating these provisions of the Act guilty of a misdemeanor, but exempt from prosecution publishers, advertising agencies, and radio broadcasters if, on request of the Department of Agriculture, they furnish the names and post office addresses of persons who contracted for or caused the dissemination of the advertisements. Dealers, too, are under certain circumstances exempt from prosecution. The Department has authority to appeal to the District Courts to enjoin all media from continuing to carry objectionable advertising.

BASIC SCIENCE IN ARIZONA

(Continued from page 29)

shall be understood and construed to mean and include all matter pertaining to gross anatomy, physiology, pathology, chemistry, bacteriology and hygiene. Wherever the term "Practicing Healing" or "Practice of Healing" is used in this act, unless otherwise specifically defined, the same shall be understood and construed to mean and include any person not hereinafter excepted from the provisions of this act who shall in any manner, for any fee, gift, compensation or reward, or in expectation thereof engage in, or hold himself out to the public as being engaged in the practice of medicine or surgery, the practice of chiropractic, analysis, treatment, correction or cure of any disease, injury, defect, deformity, infirmity, ailment or affliction of human health or disease, or who shall for any fee, gift, compensation or reward, or in anticipation thereof, suggest, recommend, or prescribe any medicine, diet or any form of treatment, correction or cure therefor; also any person or persons not hereinafter excepted from the provisions of this act who, individually or collectively, maintain an office for the reception, examination, diagnosis or treatment of any person for any disease, injury, defect, deformity or infirmity of body or mind, or who attaches the title of doctor, physician, surgeon, specialist, M.D , M.B., D.C., D.O., N.D., or any other word, abbreviation or title to his name, indicating or designed to indicate that he is in the practice of healing.

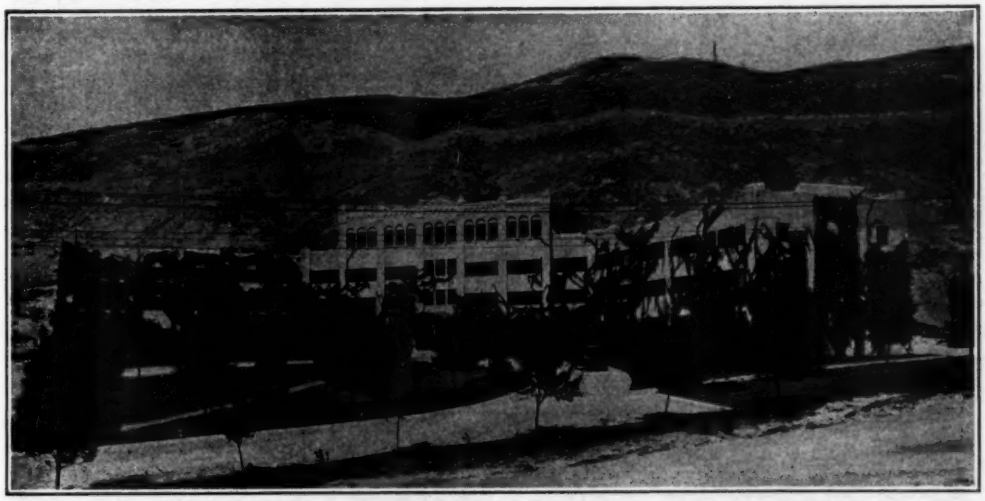
Sec. 2. Board of Examiners in Basic Sciences. There is hereby created and established a board to consist of five members, citizens of the state of Arizona, to be known and designated as the state board of examiners in the basic sciences.

Sec. 3. Same; Members, Appointment, Terms of Office; Vacancies; Oath of Office. The board of re-

gents of the university of Arizona shall appoint from the professors, associate professors or assistant professors of the faculty of the university, five persons to serve as members of the board of examiners in the basic sciences. The first appointments shall be made as soon as may be practicable after this act shall take effect. The terms of office of the members first appointed shall begin when they are appointed and qualify and shall continue thereafter for the following periods: Two members until January 1st, 1934; two members until January 1st. 1936, and one member until January 1st, 1938. Upon the expiration of such terms and of all terms thereafter, the board of regents shall appoint, for a term of six years, a successor to the member whose term expires. Vacancies in said board shall be filled, for the balance of the unexpired term, by appointment by the board of regents within sixty days after such vacancies occur, and each member shall serve until his successor qualifies; each member of the board before entering upon the discharge of his duties shall take, subscribe and file with the secretary of state the oath of office prescribed by the constitution.

Sec. 4. Organization of Board; Duties. Within thirty days after the appointment of the members of the state board of examiners in the basic sciences, as provided in Section 3 of this article, they shall assemble and organize by the election from their members of a president, a vice-president, and a secretary-treasurer, each of whom shall serve for one year, or until their successors are elected and qualify. Said board shall have authority to prescribe such reasonable rules and regulations relative to the examination of applicants in the basic sciences as may be found necessary for the performance of its duties. As to any matter coming within its jurisdiction, the board in session may take such testimony as it may deem necessary in the exercise of its powers and the performance of its duties under the provisions of this act, and any member of said board shall have the power to administer oaths in the taking of such testimony. Three members of the board shall constitute a quorum for the transaction of business. Said board shall have a common seal which shall be kept by the secretary, whose duty it shall be to keep a record of all proceedings of the board, including the register of all applicants for examination therein, preserving the names, ages, addresses, educational qualifications, and the result of their examinations, which shall at all times be available for inspection by any parties in interest. Said board shall meet at the university of Arizona and there conduct examinations in the basic sciences four times each year, respectively on the third Tuesday in December, March, June and September, and may hold such other meetings at such times and places as the board may determine. Notice of such meetings shall be sent by registered mail to members of the board. Said board may appoint and fix the salaries of an assistant secretary and other necessary employees. Such employees shall hold their positions at the pleasure of the board. The compensation of each member of the board shall be ten dollars for each day actually spent in the performance of his duties, together with actual necessary expenses, payable out of the general fund of the University. Examinations shall be in the basic sciences.

Sec. 5. Examinations. Examinations will be written and consist of ten questions on each subject and be of such a nature as to constitute an adequate test as to whether the person so examined has such knowledge of the elementary principles of such basic science as is taught at the university of Arizona in one year's instruction of thirty-six weeks, or as is



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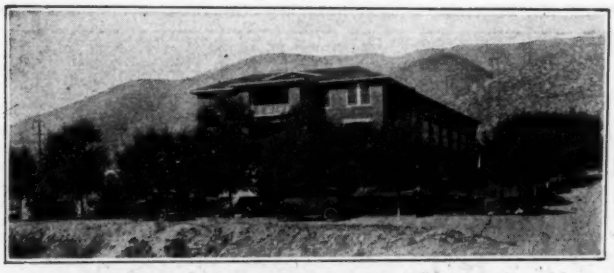
taught in one year's instruction of thirty-six weeks at any college or university accredited by the university of Arizona, or the equivalent thereof.

Sec. 6. Fees. Any person not hereinafter excepted from the provisions of this act desiring to practice healing in this state shall apply to the secretary of the state board of examiners in the basic sciences, on blank forms prepared and furnished by said board, to be examined in the basic sciences at the next examination therein following the making of such application and for a certificate of registration in the basic sciences, accompanying such application with a fee of twenty dollars and sufficient and satisfactory proof that the applicant is twenty-one years of age or over, is of good moral character and possesses an education equivalent to graduation from an accredited high school of this state; provided, that no applicant shall be required nor requested to disclose in such application the professional college or university he may have attended nor the branch or system of healing which he intends to pursue.

Sec. 7. Certificate of Registration. If in such examination the applicant attains a grade of seventy-five per cent in each subject he shall receive a certificate of registration in the basic sciences, signed by the president and secretary and sealed with the seal of said board. If he fails in one or two subjects only, he may be re-examined in the subject or subjects in which he failed at any examination within one year, without further application or examination fee, and upon attaining a grade of seventy-five per cent therein, he shall receive his certificate of registration in the basic sciences. If he fails in three or more of the subjects, he may make a new application for examination in all subjects and again pay the secretary-treasurer of said board the examination fee of twenty dollars.

Sec. 8. Certificate Without Examination. Any person, not hereinafter excepted from the provisions of this act, who was lawfully authorized to practice healing, as by this act defined, in this state on the date this act takes effect, and who was on that date regularly licensed or registered in the manner then by law provided, shall upon application as herein provided, receive from the state board of examiners in the basic sciences a certificate of registration in the basic sciences without examination therein; provided, however, that on or before January 1st, 1934, every such person shall apply to the secretary of said board for such certificate of registration, accompanying such application with sufficient and satisfactory evidence that he was, on the effective date of this act, lawfully authorized to practice healing or regularly licensed or registered according to law in the particular branch or system of healing by him pursued and specifying in said application the branch or system of healing pursued by the applicant, the school from which he graduated, if any, and the date of graduation from said school, together with a fee of three dollars. Such certificate of registration shall recite that registration is made solely as a person lawfully authorized to practice healing or licensed or registered according to law on the date this act takes effect, and that same was issued without examination in the basic sciences. Any person entitled to a certificate in the basic sciences without examination therein pursuant to the provisions of this section, who fails to apply for same in the manner herein provided shall not receive such certificate of registration except upon application for examination and actual examination in the basic sciences as herein-



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before provided; provided, however, said State Board of Examiners in the basic sciences shall after the first day of January, 1934, upon payment to it of a fee of twenty-five dollars issue a certificate of registration in the basic sciences without examination to any person who would have been entitled thereto pursuant to the provisions of this section upon applying therefor on or before the first day of January, 1934, and who makes application therefor in the manner herein provided and shows good cause why said application was not made on or before the first day of January, 1934.

Sec. 9. Disposal of Fees. The secretary-treasurer of the board of examiners in the basic sciences shall on or before the third Tuesday in December, March, June and September, transmit to the bursar of the university of Arizona a record of all expenditures of the board for the previous quarter, with all fees collected during such previous quarter, the same to be credited to the general fund of the University.

Sec. 10. Appeal from Board's Decision. Any applicant who has been denied examination by the board or feels aggrieved by the board's decision may within thirty days after such denial or notice of his failure to pass the examination appeal to the superior court of any county and such court shall on such appeal inquire into the cause of such denial or failure. If in the opinion of the court admission to the examination was refused or certificate withheld without just cause, the court may order the board to examine the applicant or to issue a certificate. Notice of an appeal from the denial by the board of the right to examination or of the failure to issue a certificate shall be served by leaving with the secretary of the board an attested copy thereof within thirty days after said board has notified the applicant of its refusal to examine him or his failure in the examination as the case may be. Hearings of such appeals shall proceed in accordance with such rules as the court may determine.

Sec. 11. Void Certificates; Cancellation. Any basic science certificate which is issued contrary to the provisions of this act shall be void. The certificate issued by the state board of examiners in the basic sciences shall be automatically revoked by the revocation of any license issued to such person to practice the healing art or any branch thereof.

Sec. 12. Recording of Certificates. Each certificate issued by the board of examiners in the basic sciences shall be recorded by the secretary of such board with the secretary of the state board of health.

Sec. 13. Practicing Without Certificate: Penalty. Any person who shall practice the healing art or any branch thereof without having obtained a valid certificate from the state board of examiners in basic sciences, except as otherwise authorized by section 19 of this act, shall be guilty of a misdemeanor, and shall be punished therefor by a fine not exceeding one hundred dollars or imprisonment in the county jail not more than three months, or by both such fine and imprisonment.

Sec. 14. Fraudulent Certificate: Penalty. Any person who shall obtain or attempt to obtain a basic science certificate by any dishonest or fraudulent means, or who shall forge, counterfeit or fraudulently alter any such certificate, shall be guilty of a misdemeanor and shall be punished therefor by a fine not exceeding one hundred dollars or imprisonment in the county jail not more than three months, or by both such fine and imprisonment.

Sec. 15. Obtaining License Without Certificate: Penalty. Any person who shall obtain or attempt to obtain a license to practice the healing art or any branch thereof from any board authorized to issue any such license, without presenting to said licensing board a valid certificate issued by the state board of examiners in the basic sciences, as by this

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act required, shall be guilty of a misdemeanor and shall be punished therefor by a fine not exceeding one hundred dollars or imprisonment in the county jail not more than three months, or by both such fine and imprisonment.

Sec. 16. Issuing Invalid Certificate; Penalty. Any person who knowingly issues or participates in the issuance of a license to practice the healing art or any branch thereof to any person who has not presented to the licensing board a valid certificate from the state board of examiners in the basic sciences, or to any person who has presented to such licensing board any such certificate obtained by dishonesty or fraud, or any forged or counterfeit certificate, shall be guilty of a misdemeanor and shall be punished therefor by a fine not exceeding one hundred dollars or by imprisonment in the county jail not more than three months, or by both such fine and imprisonment.

Sec. 17. Investigatoin; Duties of Officers. The secretary of the state board of health shall investigate any supposed violation of this act and report to the proper county attorney of the causes that in his judgment warrant prosecution. Every police officer, sheriff and peace officer shall investigate supposed violations of this act and apprehend and arrest all violators thereof. It shall be the duty of the attorney-general and of the several county attorneys to prosecute violations of this act, provided that this power shall not authorize any discrimination or preference to be made between nor among medical doctors, osteopaths, chiropractors, naturopaths, christian scientists or other persons regularly licensed to practice the healing arts in the state of Arizona.

Sec. 18. Callings Exempt. This act shall not be construed as applying to optometrists, dentists, midwives, or nurses, practicing within the limits of their respective callings; nor to affect the practice of their religious tenets by members of any church, provided they do not administer drugs or medicine nor perform surgical or physical operations nor assume the title of or hold themselves out to be physicians or surgeons. Nor shall any provision of this act be construed to prohibit the rendering of first aid by any person at the scene of an accident; provided further that the provisions of this act shall not be construed to affect and there is hereby exempted persons engaged in the operation of public or private laboratories doing pathological, clinical serological, chemistry, assaying, bio-chemistry and other kindred, incidental or usual sciences and research usually allied or carried on therewith.

Sec. 19. Limitation of Provisions. No provision of this act shall be construed as repealing any statutory provisions in force at the time of its passage with reference to the requirements governing the issuance of licenses to practice the healing art or any branch thereof, except as herein provided.

Sec. 20. Unconstitutionality. Should any section, paragraph, sentence, clause, or phrase of this act be declared unconstitutional or invalid for any reason, the remainder of said act shall not be affected thereby.

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THE MEDICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month): Volume 17, Number 2. (Chicago Number, September 1933); Octavo of 235 pages with 36 illustrations; Per Clinic Year, July, 1933 to May, 1934; Paper, $12.00, Cloth, $16.00 net; Philadelphia and London; W. B. Saunders Company, 1933.

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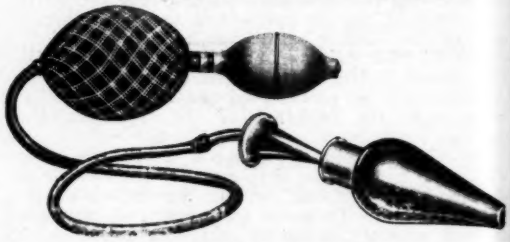

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The symposium on blood dyscrasias in this issue is worth the price of the book. The leukemic states, agranulocytosis, hemophilia, polycythemia and aplastic anemia are discussed in detail. In addition there are a number of other interesting papers.

The article on cinchophen poisoning is particularly timely; the concluding statement of this article is, "The frequency and abandon with which cinchophen, a dangerous drug, is employed in the manufacture of proprietary and other preparations should be a matter of great concern to the medical profession as it is a menace to the public."

It is not justifiable to use cinchophen in any case or under any circumstances as a therapeutic agent. O.H.B.

A cordial invitation is extended by the President and Board of Regents of the American College of Surgeons, the California State Executive Committee, and the Los Angeles Committee on Local Arrangements, to attend the California-Nevada Sectional Meeting of the College at Los Angeles on Tuesday and Wednesday, March 13 and 14, 1934. An excellent two-day program is being prepared, consisting of well arranged clinics in general surgery, and eye, ear, nose and throat surgery at the local hospitals; clinical addresses, and scientific sessions in which a number of distinguished leaders in surgery will participate, and a hospital conference for the discussion of medico-administrative and other problems of interest to the medical profession, hospital administrators, trustees, and others. The sessions will be brought to a close by a large Community Health Meeting at which the visiting speakers will talk to the people of the community on important health and hospital topics in the interests of scientific medicine.

This meeting will be of scientific value to every physician, as well as affording an opportunity of becoming more familiar with the Hospital Standardization Movement which has done so much for the practice of medicine in all its branches, and which should be furthered to the fullest extent. Hospital problems are now of greater interest to the medical profession than ever before.

The Los Angeles Committee on Local Arrangments is leaving nothing undone to make this a most successful meeting. A large attendance and a good program are assured. Further information pertaining to this meeting can be obtanied by addressing Doctor Clarence G. Toland, 1930 Wilshire Boulevard, Los Angeles, Chairman, or Doctor C. Hiram Weaver, 1709 West 8th Street, Los Angeles, Secretary of the Committee on Local Arrangements.

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